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GERMAN IRIS



DECEMBER, 1888.

THE PAST SEASON must be considered as a poor one generally for gardeners and fruit growers throughout the country, though certain localities and certain crops must be exempted from this statement. Up to the first of November the temperature in all the Northern States has ranged below the average from January forward. This is true both where the rainfall has been abundant and where it has been deficient. The cold weather of the spring continued late, and vegetation advanced slowly, greatly impeding many kinds of planting and retarding development. During the summer there were several periods of extreme heat, followed by unusual cold. Strawberries ripened late, and their season was short owing to great heat or moisture, or both combined. The Rose bloom in June was quite unsatisfactory and of short continuance. The unfavorable weather continued into the fall. A large part of the Grape crop of the Hudson River was injured by excessive rains, and the crop of the vineyards on the inland lakes of Western New York was cut short by cool, dull and rainy weather that prevented ripening, and in the end a heavy frost destroyed a large amount of the later varieties.

While we thus notice effects in a general way on some of the leading horticultural interests, it may be said that many different kinds of crops suffered from the

unfavorable weather, and yet there has been a measure of success, enough so to encourage the intelligent, energetic cultivator to more effort, and to warn the careless ones, and to teach all many a lesson; some of these are as follows: that well drained and well worked lands are best for all crops; that early planting, other things being equal, always produce the best results; that good cultivation, which includes proper manuring and working the soil, will frequently make up for a bad season; that in raising a crop of almost any kind there is a great choice in locations, and the skillful cultivator will carefully adapt his crops to the natural conditions of soil, climate and locality.

The Peach growers of Maryland and Delaware had a large crop, and the Apple growers of New England and New York State have no cause for complaint. The late crop of Potatoes is a large one throughout the country, though there is some danger of loss by rot in those parts where the fall rains have long prevailed.

Amateur horticulturists have worked with a will the past season, if we can judge from many evidences to that effect. A greater number than usual have been exhibitors at fairs and horticultural shows, and in many other ways there is seen to be a growing love for the cultivation of the garden and of house plants. One of the notable advances in this State to

spread a knowledge of horticulture, and to train up the children of the land to love and practice it, is the legal establishment of Arbor Day. On this day the exercises will relate to trees and shrubs, their habits, appearance, uses and requirements in planting and cultivation. The time thus given to this subject is short, but it cannot fail to produce an impression on the young minds that will afterwards develop for their individual pleasure and the public good. The establishment of Experiment Stations in all of the States, with government appropriations for their maintenance, is a measure which will undoubtedly prove of great service, eventually, to agriculture and horticulture. The results reached by these Stations may not at first be appreciated, and for a considerable time but little should be expected from them, but continued experiment and careful observation by those who are competent and well equipped for the service will, in time, enable them to direct intelligently many of the practical operations of the farmer, the stock raiser, the fruit grower and the gardener in regard to which there has heretofore been doubt and uncertainty. To what extent the conduct of these Stations will be under the direction of a single head we are not informed, but in a general way this seems to be a necessity for their greatest usefulness.

The Department of Agriculture, as now organized, is doing efficient service and becoming increasingly useful. Without attempting any discrimination between the different Divisions, which are all doing excellent work, we may yet notice especially that of Entomology, which is in charge of Professor C. V. RILEY. To his untiring zeal and his ability as a naturalist, to his systematic and energetic work, and to his persistence in whatever investigation he undertakes, is principally due the great efficiency of the Division of Entomology, by which inestimable service has already been done to the planters and farmers and gardeners of this country. Cotton planters, Orange growers, Hop growers, fruit growers generally, and vegetable gardeners may be mentioned as classes which have been especially benefitted by his labors in testing and establishing means to destroy the insects that prey upon their crops.

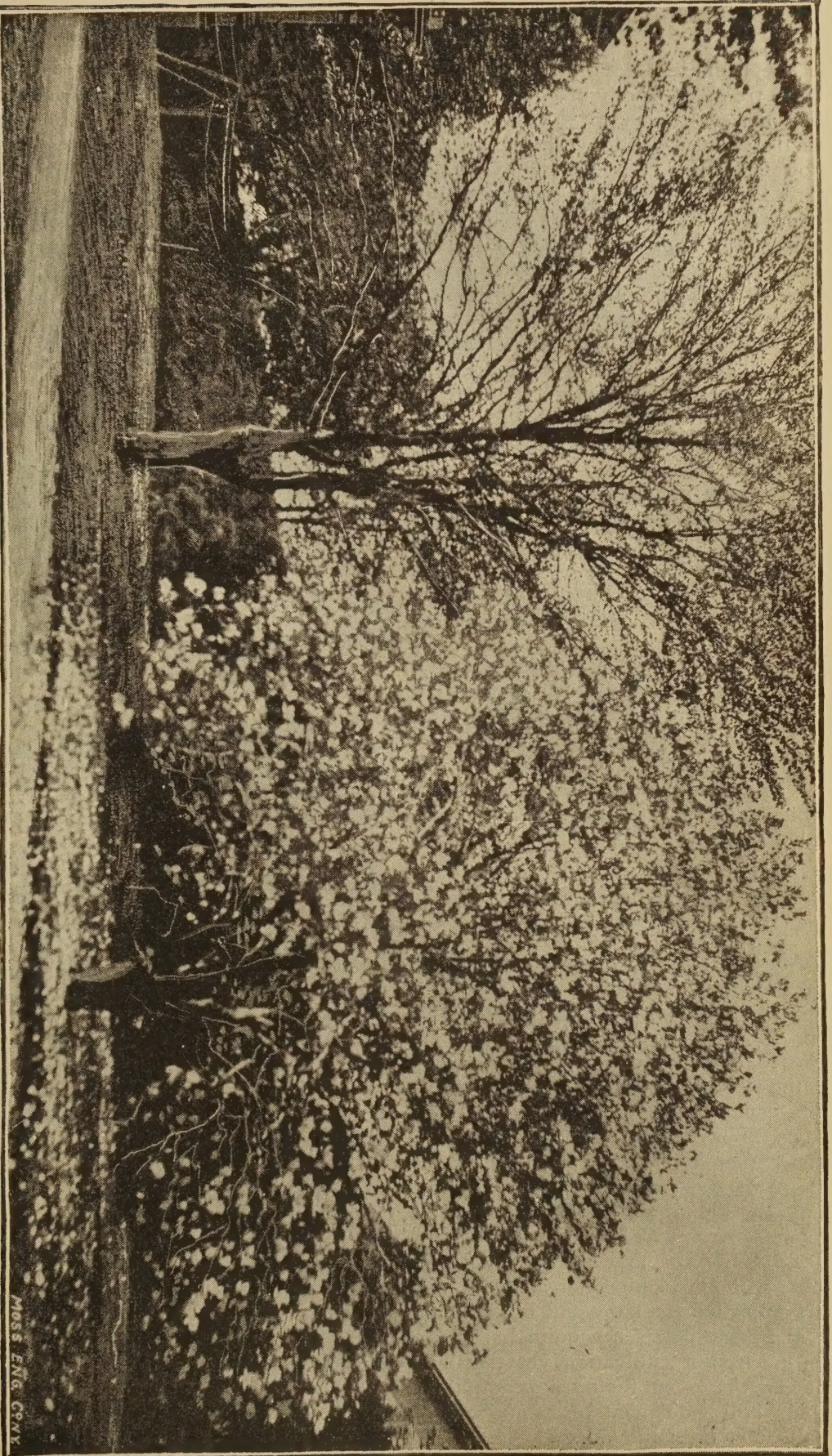
A new feature of this Division is a publication called *Insect Life*, which is sent out each month; it relates to economic entomology, noticing and considering those insects that are in any way injurious to man and his interests. This publication will be the means of sending out to the public timely information in regard to insect enemies, and enable all those engaged in rural pursuits to destroy or guard against them.

The Divisions of Pomology and Botany are also very promising. The section of Vegetable Pathology of the last named Division is, at present, doing excellent work for the Grape growers by its investigation of the Downy Mildew and the Black Rot. The introduction of Russian and other hardy fruits for the extreme North is, also, a valuable feature.

All these agencies are most helpful to the intelligent farmers, gardeners and fruit growers of our broad land, who keep themselves promptly informed through current literature of the discoveries and advances in their multifarious art. The practical worker is not expected to be a scientist, but the plant grower, whatever his special line, has a right to demand and expect much from science, and if he asks he shall receive. Science is the teaching of nature.

One of the difficulties of fruit growers at this time is a lack of orderly methods of disposing of their produce, with the result that some markets are often flooded and others are never well supplied. The Orange growers of Florida have made some attempts to regulate shipments by means of the direction of a central head, but their efforts have not yet resulted in a system entirely satisfactory. The Peach growers of Delaware and Maryland are trying a somewhat similar plan. But the raisers of all kinds of fruit experience the same trouble, and are searching for remedies. By proper organization and united efforts a much better condition of things in this respect will, no doubt, eventually obtain.

Thus, as we cast a glance over some of the interests of horticulture at the present time, we see that it is a pursuit attended with difficulties, but which is, also, ably supported, and with the combined intelligence, thrift and energy of horticulturists themselves will continue to produce satisfactory results.



Moss Eng. Co.

MAGNOLIA SPECIOSA, OR THE SHOWY MAGNOLIA.

CHINESE MAGNOLIAS.

The Chinese Magnolias are beautiful lawn trees, especially in spring, when in blossom, and a few specimens of it add vastly to the wealth of any collection, however varied and rare otherwise. Before the foliage is out the trees cover themselves with great white or tinted blossoms. In the preceding engraving *Magnolia speciosa*, with white flowers shaded with light purple, is represented, being a photographic view of the tree as it appeared a little after the middle of May. The trees never become large, and the present specimen, more than twenty years old, is about twenty feet in height; their growth is slow, but they commence to bloom when quite young, or when only two or three years of age.

Among the varieties of the Chinese *Magnolia* which have been considerably planted, the white one, *M. conspicua*, is oftenest seen, and this is the first to bloom in spring. The flowers are pure white.

There is a variety of late introduction, and as yet very rare, which blooms still earlier than the preceding, this is *M. stellata*, or, as it is sometimes called, Hall's Japan *Magnolia*. This variety is dwarf in habit, and produces semi-double, white, fragrant flowers earlier than any other kind.

Magnolia Soulangeana is one of the handsomest varieties, with flowers somewhat larger than any of the varieties mentioned, and shaded with purple at the base; leaves large, glossy and abundant. A fine hardy variety.

The Chinese Purple *Magnolia*, *M. obovata*, is a dwarf species with fine, large, showy flowers that cover the tree from the last of May to some time in June, but it is rather tender in this climate, and therefore can only be employed successfully in more southern localities. There is, however, a seedling of it known as *Lenne's Magnolia*, which is quite hardy here, and forms a large, handsome tree. The flowers are dark purple, large and cup-shaped, and form a firm contrast to those of lighter color. This is a particularly desirable variety.

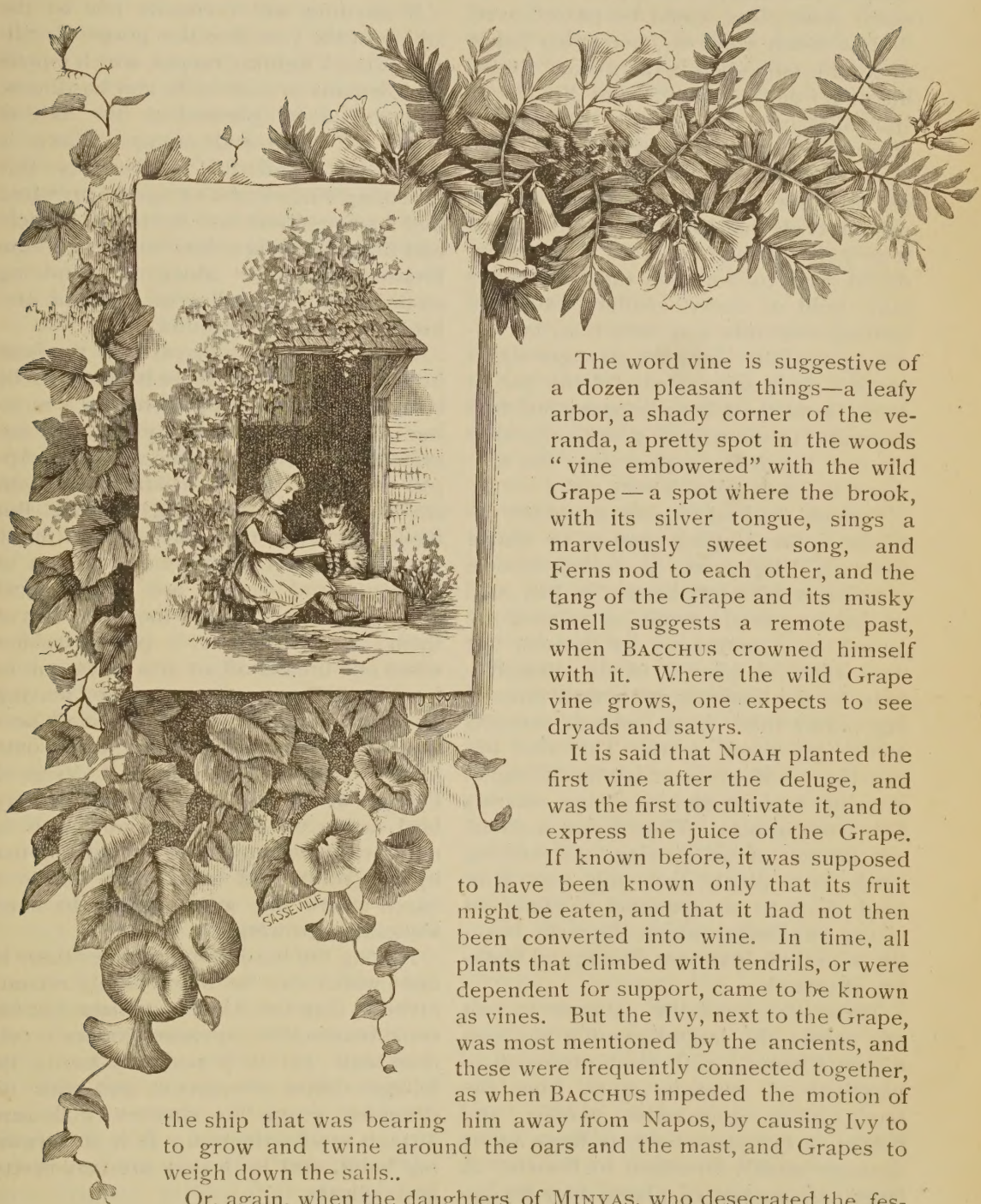
The *Magnolias* are impatient of removal, and should be transplanted several times in the nursery before sending them out. This requirement, together with the fact that the trees are rather difficult to propagate, makes them somewhat costly, but one can afford to pay well for a specimen of *Magnolia*, if safely transplanted where it is to remain. The best time for the removal of the trees is in spring, about the time the leaf-buds are ready to push.

THE IRIS.

Among the hardy flowering plants for the garden, and suited to most localities, there is none that better claims attention, and yet none that is generally less regarded, than the *Iris*. For about a month of the late spring time and early summer this beautiful flower will open its blossoms. Few people are yet aware of the many splendid varieties which this genus of plants now affords. What with the English, the Spanish, the German, the Japan species, with their numerous varieties, *Iris Suziana*, and several other species, without naming our native kinds, the collection is a large and brilliant one. While these plants are quite hardy, and of the easiest cultivation, yet they give flowers that equal the most beautiful *Orchids*, both in elegant forms and combinations of brilliant colors

The colored plate in this number shows two varieties of *Iris Germanica* *Cæsar* and *Thorbecke*. Both are strong growers and throw up tall spikes of flowers. *Cæsar* has a very large flower, of which the petals and sepals, or, to use a florist's term, the standards and falls, are a lavender or purplish lavender shade, the falls being somewhat deeper in color and with darker veins. *Thorbecke* has a handsome shaped blossom, of which the standards are white and the falls a dark purplish maroon with maroon veins on a white ground at the base. The yellowish beard at the base of the sepals in each variety adds much to their beauty. For cutting as vase flowers no plant is more admirable than the *Iris*. The plants can be set either in fall or spring; good garden soil is all they require.

ORNAMENTAL VINES.



The word vine is suggestive of a dozen pleasant things—a leafy arbor, a shady corner of the veranda, a pretty spot in the woods “vine embowered” with the wild Grape—a spot where the brook, with its silver tongue, sings a marvelously sweet song, and Ferns nod to each other, and the tang of the Grape and its musky smell suggests a remote past, when BACCHUS crowned himself with it. Where the wild Grape vine grows, one expects to see dryads and satyrs.

It is said that NOAH planted the first vine after the deluge, and was the first to cultivate it, and to express the juice of the Grape. If known before, it was supposed

to have been known only that its fruit might be eaten, and that it had not then been converted into wine. In time, all plants that climbed with tendrils, or were dependent for support, came to be known as vines. But the Ivy, next to the Grape, was most mentioned by the ancients, and these were frequently connected together, as when BACCHUS impeded the motion of

the ship that was bearing him away from Napos, by causing Ivy to grow and twine around the oars and the mast, and Grapes to weigh down the sails..

Or, again, when the daughters of MINYAS, who desecrated the festival of BACCHUS, are punished by being changed into bats, and their work into vines. “The cloth hanging in the loom,” we are told, “put forth foliage like Ivy. Part changes into vines, and what were threads before are now turned into vine shoots. Vine branches spring from the warp, and the purple lends its splendor to the tinted Grapes.” The Ivy and the Grape were not only used by the ancients to crown their deities and in many sacred rites, but were also used in secular adornments, and entered largely into their works of art. We are told of a temple floor so wonderfully inlaid that the bunches of Grapes would as easily have deceived starlings and other birds as those which ZEUXIS drew, and that where the artist had strewn the branches the thickest, one walked with great strides lest the

feet became entangled, and that the Grapes were stepped over just as an unequal stony place would be passed over.

How much comfort, how much peace of mind is embodied in the words, "dwelling under one's own vine and Fig tree?" Immediately there arises a vision of a tranquil summer morning in a shaded porch, the dancing of the leaf-shadows on the floor, the soft twittering of the nesting birds that have also appropriated it as their vine and Fig tree. It is a wonderful study to note how the leafy hands take hold of every available support, turning now this way, now that, but always gracefully—how the stronger stalks support the weaker ones, and the parent stems send their lithe progeny out into the world to see what is going on, to look up over the roof, to peep into the windows, to listen at one's very ear.

Perhaps the best vine to shade the veranda is the Virgin's Bower, or native *Clematis Virginiana*; its snowy blooms are a mass of starry beauty in July, and its feathery seed-vessels in autumn are almost as beautiful as its flowers, nor does winter deprive it of its attractiveness, for the branches, with their remaining plummy tufts, form fantastic wreaths every light snow storm. This vine has also the merit of never winter-killing, of growing rapidly and of being entirely free from insects. Then it has a pleasant fashion of self-sowing, and making hardy little plants that only wait your kind offices to remove them to some out of the way corner, which they will beautify with their luxuriant foliage and feathery aftermath.

Those who have the patience to wait can secure the large-flowering varieties of the *Clematis*, with their profusion of blossoms of exquisite tints, from the seed, which germinates readily and makes, in two years time, as large a vine as those usually furnished by florists. A large percentage of plants may be secured from one packet of seed, thus bringing these rather expensive vines at a small price.

Of the *Clematis coccinea* it is well enough to say that in this climate it needs to be treated to rich soil and plenty of sunshine and moisture; an out of the way corner is not at all suited to its needs, and one planted in such a place was a forlorn looking specimen, but as soon as

it was promoted to the garden it grew rapidly and luxuriantly.

If anything will reconcile one to the falling of the year it is the gorgeous foliage of the Virginia Creeper, which equals the *Clematis* in usefulness and hardiness, and should be planted at the foot of every old post and stump. There is something wonderful in the way this charming vine climbs an aged Apple tree and festoons itself from branch to branch, and flings its vivid colors to the autumn breeze, or creeps along a crumbling stone wall, like a line of crimson embroidery on a gray ground.

In the rambling door-yards of the farm houses of the land there is often to be seen a patriarchal Apple tree, or a number of them, for, a century ago, our ancestors had to be utilitarians, and the Apple trees not only furnished them with shade, but with fruit and flowers. But these old trees that have, for so many years, held aloft their yearly burden of fragrance and fruition are in the decadence, and every season there are less of them; it is, however, a pretty fashion when one breaks off, or has to be cut, to let it form its own monument, by leaving the stump, and, if possible, a small section of branch, and planting with some fresh earth a *Clematis* or Virginia Creeper at the foot, and placing a pretty bird house on top. Especially as it is not always convenient to have it dug out by the roots, and as it often leaves a space where one would prefer to have something growing.

Among the hardy foreign vines there is none which can be more highly recommended than the *Akebia quinata*, but for some reason this Japanese climber is seldom seen; yet it is perfectly hardy, its foliage almost evergreen, and with its drooping, grape-like clusters of flowers attracts much attention. It is of a twining habit, and its leaves are very pretty and delicate.

The *Aristolochia* makes a very good contrast with its tropical foliage, and may be utilized in the garden by being trained umbrella fashion. A stout stake, seven feet in length, must be firmly set, and cross pieces at the top curved down like the ribs of an umbrella. The vine when it reaches the top of the stake can be trained around the cross pieces many times, and the effect will be odd enough.

The Trumpet Creeper, *Bignonia radicans*, requires a sheltered situation, and while it thrives well in some localities is a perfect failure in others. When it refuses to make much growth as a vine it may be trimmed back into a shrub, and will be very ornamental with its profusion of richly colored flowers.

The Climbing Bitter Sweet, *Celastrus scandens*, with its charming wax-like berries, is another of our native vines which will help transform any unsightly fence or outbuilding into an attractive spot, and it seems a pity that people should be so slow to avail themselves of the help the vine will so willingly give, and that the eye so often meets barrenness and angles where there might be grace and beauty. There should be a vine day every spring, and wherever there is an ugly, unattractive point, there a vine should be placed to soften and beautify. Why many women spend so much time in personal adornment, and neglect to take a half hour to train a vine over a veranda, is a mystery.

A vision of dewy summer mornings and darting humming-birds, or of evenings redolent of perfume, is conjured up by the Honeysuckle, which is so hardy and long tried that it may well enough be called the flower of the past, of memories, as it is the flower of sentiment and romance, for it has stood in the same corner, by the porch, of the old homestead for more than half a century, it has listened to greetings and farewells, to lover's vows and mourner's sighs. And when, in some instances, it has been pronounced just an old-fashioned thing, and dug up and flung over the fence, or set in some remote corner, it has gone right on with its monthly offering of fragrance, and may now and then be found peeping out from a tangle of low bushes and Bindweed, with a sweet humility.

Although we have Hall's Honeysuckle, an evergreen variety from Japan, and various other foreign sorts, there is none more beautiful and fragrant than this same, old-fashioned Dutch Honeysuckle. The Scarlet Monthly is a strong vine, and there is yet another variety, with creamy fragrant blooms tinted with crimson and purple, quite distinct from the common Monthly Honeysuckle, a rather rare sort, I fancy, for I have seen it but once or twice, and it is not in any catalogue.

The most charming vine for piazza decoration is the Cobœa, a vine of graceful growth and lovely, purplish, bell-shaped flowers. It was named from COBO, a Spanish priest, who found it growing wild in Mexico and cultivated it. A plant placed in a box on the the piazza with plenty of rich soil will grow many feet in one season, and be a magnificent sight with its exquisite blooms, and may then be brought into the house. Of the two varieties, *C. scandens* and *C. folius variegata*, the latter is the better for house decoration.

When it comes to a doorway vine the English Ivy is unequalled; a pretty pot of it each side of the hall door, with its luxurious growth trained in a graceful curve is very inviting, and is suggestive of a cool, neatly kept interior. The Ivy should have plenty of water, and an occasional sponging, and before the frosty nights come should be removed to the house where it will be a charming addition, and can be placed on a bracket to twine around picture frames, or by the window which it will soon embower.

Among other vines for verandas may be mentioned the Passion Flower, the Maurandya, and the Thunbergia, also the Canary Flower. It always seems better to plant the Madeira Vine in the garden to ensure rapid growth and bloom, for although it runs freely in the house or in locations shaded by porches or piazzas, it is not apt to blossom without plenty of sunshine.

The Wistaria is too charming to be omitted, and in sections suited to its growth is, perhaps, the loveliest of all our vines, with its graceful clusters of light purple flowers. The tuberous-rooted Ground Vine, *Apios tuberosa*, is a charming climber, a great acquisition to every garden, for the bulbs are hardy, it grows rapidly and its clusters of purple flowers have a violet-like fragrance.

Another tuberous climber, the Chinese Yam, or Cinnamon Vine, so named from the odor of its flowers, is desirable for its hardiness and quick, free growth.

Among the annuals the Morning Glory has the first place, so full is it of grace and beauty and cheerfulness, with its delicate blossoms in rich profusion, and its pretty, caressing way of attaching itself to each support offered.

Ipomœas are almost as easily grown,

and are very charming. The Cypress Vine, although requiring more care, should be grown just for its valuable aid in bouquet making, for it is very effective in any arrangement of flowers where something trailing is required.

The Bryonia is a handsome climber with prettily cut foliage and attractive fruit, about the size of a Cherry.

Adlumia, a biennial climber, with delicate green foliage and pretty pink and white flowers, is most useful to cut in quantities for house decoration. And there are many pretty wild vines, Man-of-the-Earth, one of the Ipomeas, has heart-shaped leaves and rather attractive blossoms.

Among the Bindweeds, Calystegia may be mentioned as very useful to plant by hedges, where its delicate rose-like flowers will brighten the somber green; do not, however, put it in the garden, for it proves troublesome by spreading under ground, and appearing in unexpected and undesirable places.

Perhaps the most curious of the Convolvulus family is the Dodder, with its slender amber tendrils. I am told that it is often a nuisance; but seen growing in a thicket of wild flowers by the margin of a river, it is wonderfully pretty, and looks like a veil thrown over the whole array of meadow beauties.

When it comes to training vines there is room for the exercise of discretion; it is not best to be too severe with them, or curb their natural inclination too much. There are places, of course, where a conventional arrangement is necessary, to prevent light from being shut out of a room, but generally speaking, tie or nail those that need support, and leave the others to go as they please in graceful confusion. To quote from Mr. CHARLES DUDLEY WARNER, the most charming arrangement is where "the vines disport themselves like holiday children, climbing the trees, the side of the house, and revelling in an abandon of color and perfume."

ADA MARIE PECK.

THE CHINESE PRIMROSE.

As the name suggests, the Chinese Primrose comes from Asia. For the window, conservatory or greenhouse, from holiday time until hot weather, I know of no other plant so certain to bloom in such profusion as this. It adds much beauty and life to every plant collection.

Often, in noting different writer's ideas of the correct time for sowing the seed in order to obtain plants of the right size for winter blooming, I am amused at the wide difference of dates given. For instance, one will advocate the month of February, another declares no better time than July or August, and so on. Now, the fact is this: for early blooming the seed can be sown as early as January, with the result of fine large plants ready to go to work at once upon being transferred to their winter quarters, and with repeated plantings up to September, omitting, perhaps, about two sowings during the heated season in summer, the time of blooming may be prolonged into the spring, until it is not desirable for the plants to be kept inside longer. While one batch of plants after producing their best crop of flowers may continue to

bloom right along during the rest of the winter, it will not be in so profuse a manner, and therefore it is desirable to have another lot following.

To obtain the best results in germination, let the seeds be sown in shallow boxes, say two inches deep, soil to be friable loam, sifted and pressed down nicely with a smooth board to make a perfectly level surface, on which sow the seeds, covering about a sixteenth of an inch with moss sifted through a very fine sieve, the finer the better; I use a flour sifter. This material possesses the necessary spongy character and keeps the seeds in the right condition for sprouting to the best advantage. It is a very discouraging trial to have the soil become dry after planting, if but for once, as often the whole power of germination is destroyed, or, in case this does not occur, the length of time when the seedlings should appear is made much longer.

Immediately after the seedlings appear, just before the leaves, other than the seed leaves, show they should be pricked off into boxes similar to those in which first sown. Great danger of the plants being attacked by a species of

fungus exists, which quickly proves fatal in case the transplanting is not promptly attended to. After having been in these boxes from six to eight weeks, shift to two and one-half inch pots, and further as needed. Avoid a change of this nature in hot weather, as heat is one of the things to guard against in Primrose culture. The plant loves a cool place, with plenty of water at the roots, though it can withstand a comparatively dry atmosphere. Good drainage is an essential point.

There is considerable diversity, both in foliage and flowers, especially of the single varieties. The fern-leaved sorts are especially pretty, but in amount of bloom they do not equal the other kinds. The colors run from red and purplish-crimson to white, and in many cases occur striped and mottled forms, all being very beautiful. None of the kinds possess a great amount of odor, although both leaves and flowers are somewhat

fragrant, of which I am very fond, while many persons think it offensive.

In the case of double varieties it is not so largely in practice to raise them from seed, as the exact types cannot be depended upon. The Double White, now mostly grown for winter flowers, has a tendency to break up into crowns from six to twelve pieces, so it is a very easy matter to fill up the pot with moss to the lower leaves, which induces new roots to form around each one, after which they may be taken off from the old stock.

Mr. JOHN HENDERSON, now of Long Island, while yet in England, first originated the double Primrose, in the year 1836, and made the first exhibit in January, 1837, before the Horticultural Society of London. The award was the silver Banksian medal. In the first lot there were about eighteen plants producing double flowers both purple and white.

FISKE.

A ROSE GARDEN.

"Is it not delightful, Grace, to think that, after living on the same street and being school-girls together all our lives, we are going to be next door neighbors in a new town!"

"Yes, indeed," answered Grace Anson, a bride of a few months, as she leaned back complacently in her brand new quaker chair, and took an admiring survey of her dainty little drawing-room, "and what is more," she added, "I give myself credit for it all. If I had not married George, and come to Belleville to live, the probability is you would never have met Richard Allen. Then, too, just as soon as I heard the Smiths were going to give up the cottage next door, I said, immediately, O, what luck, just the place for Kate and Richard. I could hardly wait for George to come to dinner, and when he did, I made him telephone to Dick before he had eaten a mouthful. And now it is all settled, the cottage rented, the lease taken. If only you would hurry up and get married, Kate—the twenty-first seems such a long way off."

"Yes, just two weeks," laughingly answers her friend. "I can assure you it is short enough for all that I have to do in

the meantime; you will have to curb your impatience. I say, Gracie, let's run across and look the cottage over again; Dick was so taken up with the sewers and drainage, and furnace pipes, I scarcely saw anything else."

So, throwing on wraps, for it was a chilly September day, the two young friends ran lightly across the little strip of wet, leaf-strewn lawn which separated the two houses.

"They are almost pin for pin alike, Grace; the same number of rooms, the same bay windows, and the same delicious little balcony on the second story. And, Oh, what a lovely place for a flower garden, right back of kitchen and dining-room. I want my garden back of the house, where I can work and play undisturbed and out of sight. A smooth green lawn in front, and a garden full of fragrant flowers back of the house has been my dream for years."

"Oh, well," says Mrs. Anson, decidedly, "you can have your emerald lawn, Kate, but as to a garden there, you are doomed to disappointment. I tried, all last summer, to have a garden; I bought seeds of all kinds, Mignonette, Sweet Peas, Pansies, Pinks, every variety in the

catalogue, nearly. I dug and hoed. Paddy Lavin helped me. By the time the seeds were all sowed we had used almost a pound. Come to this window and behold the result."

"Not very reassuring, certainly," says Miss Kate, looking down into her neighbor's yard, where spasmodic attempts at gardening are still visible. Unsightly mounds of earth are piled up in various places, almost covered by a luxuriant growth of Chickweed, Pursley and giant Marsh Mallows.

"There is no use trying to grow anything," pursues Mrs. Anson, disconsolately. "I don't believe the soil is good. Paddy says the soil is all right, but I don't believe it. I run the hose on the seeds every night and morning, and Norah threw all her dish and wash water on to them—you know soap water is splendid for growing things—and they had the best of care every way, but nothing grew. One wretched Verbena did manage to come up, and put forth a sickly blossom. There it is now, in the middle of that round bed," pointing to a blackened stalk with a few withered leaves adhering to it, which was shaking dismally in the September winds. "The frost last night killed it. I am glad, for it was a miserable skeleton all summer."

Kate laughed. "I guess, Grace, you have killed your seeds with kindness. I agree with Paddy, the soil is right enough, if it were not, how could it produce such prize specimens as those?" pointing to the Marsh Mallows and Dan-delions.

"I planted other things besides seeds, when I saw they were not going to come up. I bought Pansy plants, some Geraniums and Phlox; even the Lilies of the Valley, from mother's garden died."

"Dear, accommodating little things," says Kate, "why they will grow anywhere, if you only give them half a chance. Well, I must have a garden. I can't be happy without one, and I am not going to begin low down in the scale, either. I am going to begin with a Rose garden. I have learned so much about Roses from Mrs. Benson, who has a delightful Rose garden, that I feel quite sure that I can raise them. I know most of the best varieties by name, and any way, Grace, I'm going to try."

Three weeks have gone by. The last day of September so much warmer than the first had been, which was ushered in with untimely frosts. The cottage on B. street shows signs of life, dainty hangings appear at the windows. Drays depositing boxes and trunks are at the door constantly. One huge box is handed down with especially tender care. It contains the wedding gifts. Oh, most fortunate girl of the present day. At last all is done; the cottage is in order from top to bottom, such a pretty house, and such happy occupants.

"Now that everything is done, I am going at my Rose garden," says Mrs. Allen to Mrs. Anson. "I am going to plant only Hybrid Perpetuals. This is just the time, middle of October, to set them out. I am so anxious to have them safely planted out."

The order is written out, seventy-five large, strong plants. What a bewildering thing a catalogue is, a Rose catalogue above all others; but at last the choice is made, Roses of all colors and shades, familiar and unfamiliar. Then Mrs. Allen holds a consultation with Paddy Lavin, and soon he is at work with spade and shovel and hoe. The soil is a rather stiff clay. This is lightened with some well rotted barn-yard manure, then made mellow and friable. How nice they look when done, two large, oblong beds, one round bed; this last designed for dwarf varieties, Eliza Boelle, Madame Norman, Eugenie Verdier and La France. Mrs. Allen has ordered four of each of these beauties, well knowing their admirable qualities, exquisite blossoms, and that they are nearly as free and constant bloomers as the less hardy Teas.

In due time comes the box of Roses; as soon as it is lifted from the express wagon and deposited in a safe corner of the shed, Mrs. Allen sends for the indispensable Paddy, who has promised to set them out. But, alas! Paddy, who is so willing and good natured, so clever at gardening, has a serious fault. Word comes back that Paddy is "on a spree, and will be no good for a week, drat him." This disheartening intelligence does not altogether daunt brave Mrs. Allen. She dons a gingham dress and rubbers, a warm shawl is tied around her, for the day is cold, and with the aid of a small boy the box is opened and planting

begins. It is hard work, the ground is cold, and the thorns are sharp. Mrs. Allen's white hands, from which she has just removed her new wedding ring, are red and embellished with numerous long scratches. The boy, like the generality of small boys, is no good, and the Rose bushes are so large—splendid bushes, that is certain—and such bushy roots, almost like young trees. She digs and plants all day, reinforced with some help from Dick at noon. Sunset finds her with an aching back, with stiff and tired arms, but with her work accomplished.

She takes a last look at the straggling, leafless bushes, resting in their bed, and goes into the cheerful sitting-room with a tired, lagging step, it is true, but with a happy heart. She is none the worse for her hard day's work, and in three or four days Pat appears, shame-faced and seedy, with spade in hand.

"Missus, I've come to set out them Roses."

"Why, Pat, they are all planted, and look lovely. I did it myself."

Paddy walks around the house to survey the rosery.

"Don't they look nice, Paddy?"

"Yes," answers Pat, "but, all the same, every one has got to come up, all but those four La France," he adds, stooping down to see the labels.

"Come up?" shrieks Mrs. Allen, "what *can* you mean?"

"They are budded Roses—fine ones, too. I don't know when I have seen such great bushes; but they have got to go down ten inches, at least. Here is where the bud is joined to the stock, you have it five inches above ground, when it ought to be that much under. They will never do this way; winter-kill before spring, it's likely. Never mind," in a consoling voice, "I'll have 'em up and in again, too, before the day is over."

Paddy is as good as his word, and Mrs. Allen gives a sigh of relief as Paddy buries his last Rose.

"Why don't nurserymen tell people when they send budded Roses, Paddy, how was I to know?"

A few weeks later the beds are covered with a thick layer of manure, a green counterpane of evergreen branches is laid over that, and comfortable enough they look in their winter quarters, quite

able to withstand frost and snow and wintry blast. And it is well they can, for it is a bitterly cold winter; but, luckily, there is much snow, they are covered white all winter. When Mrs. Allen goes out to look at them, one cold April day, they are green to the very tips, even the tender Victor Verdier and Coquette des Alps, look thriving, and the leaf-buds swelling. A week later, off comes the evergreen branches; another week, Paddy rakes off the coarsest manure and hoes in the fine. The buds are swelling fast, but it is a cold April, the leaves do not appear. As Mrs. Anson looks at them closely, she discovers that every leaf-bud is covered with tiny green aphids.

"Oh, the mean things, they might, at least, have waited until the leaves came." But she knows the remedy, a cup of soft soap is put into a bowl, three tablespoonfuls of kerosene added, and the two stirred together with an iron spoon. When stirred enough the mixture has a glossy, shiny look. When thoroughly incorporated she stirs the soap and oil into a pail of water, such as holds three gallons. It was now ready to apply, and Mrs. Allen discovered that it was a sovereign, infallible remedy; it killed the aphids. Later, when the troublesome thrips came, one application ridded the bushes of them. She procured a force pump, so as to better wet the under side of the foliage. Later still, it made short work of the rose slug, leaf roller and other pests which have a special fondness for a rose leaf diet. She discovered also, that as the foliage become tougher she could safely take four, or even five, tablespoonfuls of oil to the three gallon pail of water.

What warm days these are, a faint green marks the Rose bed; it becomes deeper daily. Now the buds show themselves, so tiny, but how full of promise. Mrs. Allen haunts her garden, where, as yet, no flower is.

"You will have pneumonia, prowling around in the damp, Kate," calls over little Mrs. Anson.

Other gardens are gorgeous with Tulips, Hyacinths and Narcissus; the Snowdrops, Scillas and Crocus have already passed away; but Mrs. Allen cares not, she is faithful to her old love, and has hope that her Roses, even this first year, will

reward her devotion. Paddy aids in every way, the beds receive a weekly libation of liquid manure, soot from the kitchen stove pipe and many a good drink beside. Mrs. Allen plies her force pump and kerosene emulsion with unabated vigor. Dame Nature assists benignly, dancing rains, warm sunshine and drenching dews alternate with each other.

June is here, and the Rose garden is a mass of delicious green, the growth has been marvelous and the bushes are loaded with buds. Paddy says some ought to come off, but Mrs. Allen will not listen to such a slaughter of the innocents. The buds swell and grow larger daily, those on the Magna Charta and Paul Neron are unnaturally big, and already they show delicate lines of rose pink.

The grand opening cannot be deferred much longer if such weather continues; and it is not. When Mrs. Allen, a few days later, steps into her garden, the sight that greets her amply repays her for the scratched and blistered hands, the aching back, and the many hours of toil which have been given the rosery. Her eyes brighten and she gives a scream of delight.

Only last night there was no hint in the still closed buds, of this sudden transformation. Now they have burst their bonds and stand disclosed in all their beauty. Roses of all colors in all stages of development, from the tight, green baby bud to the perfect, wide open flower. A light dew has fallen, and sparkles on leaf and flower. Mrs. Allen now makes acquaintance with new friends, and renews friendship with the old.

Here is John Hopper and Baronesse Prévost, both a lovely pink, and standard varieties. Comtesse Cécile de Chabrilant, a Rose as perfect as a shell, with a deep sea-shell tint. Pierre Notting, its violet-red, globular buds heavy with dew and wealth of perfume. Baron de Bonstetten, blackish-red. Jéan Liabaud, a dark velvety red, so rich in coloring that all others pale before it. Coquette des Alps, white with pink shading. Caroline de Sansal, apple blossom tint. Comtesse de Serenye, mottled pink and white, like a baby's dimpled hand. Alfred Colomb, carmine crimson, large and

beautiful, with a delicious fragrance. Marie Baumann, Marie Rady and Marshall P. Wilder are all rivals, very like in color, form and perfume. Prince Camille de Rohan and La Rosière are dark complexioned beauties, as is, also, Louis Van Houtte. Queen of Queens, Gabriel Luizet and Baronesse Rothschild are three aristocratic Roses, perfect as a picture, of a beautiful light pink. Her Majesty, whose reputation is not quite spotless, repays the time and sulphur given her, by two magnificent blooms, immense in size, much larger than Paul Neron, and every pink petal is like satin. Merveille de Lyon, White Baronesse and Mabel Morrison, all quite similar, large, cup-shaped, perfect flowers, of a pure white, the pale green foliage grows close up to the flower and sets off the purity of the bloom.

Every day brings new beauties and new surprises. Climbing Jules Margotin is covered with its fresh pink blossoms. Coupe d'Hébé, with only three buds which, when open, are silvery pink. Souvenir de Malmaison is beautiful in a dress of rose-tinted fawn.

Here are two white Damask Roses, Madame Hardy and Madame Zoetman, they have an odor like attar of Roses. Madame Plantier is a mass of white, the flowers blooming in clusters. Xavier Olibo and E. Y. Teas are of a beautiful, rich, dark carmine, exquisite in form and coloring.

Then, here is the round bed, devoted to dwarf varieties. How they have grown. La France, silvery pink, a Hybrid Tea, but quite hardy. Puritan, pure white, with a delicate sea shell tint in the inner petals. Eliza Boëlle, pure white with a glowing heart, a Rose of beautiful, circular form, with a most sweet fragrance. These latter, Mrs. Allen finds, are free-flowering; as late as the middle of October she picks a handful from the round bed, and still later a bunch of La France, and a lovely branch of Coquette des Alps, with four perfect white and pink flowers.

Has Mrs. Allen's garden been a success? She will tell you, yes. She adds yearly to her collection of Roses, she works hard and grows strong, and her Rose garden is "a thing of beauty and a joy forever."

M. B., Lockport, N. Y.

WINDOW GARDENING.

Out of door gardening, with a good soil, a favorable locality, and a little plain, practical experience back of it, is not a very difficult matter. Window gardening is not so easy. For out of doors the rain and dew, the pure atmosphere and hearty sunlight are valuable adjuncts, while in doors we must be wisely thoughtful indeed, to provide that which must take the place of them. The hearty sunlight we must have or we fail utterly. Windows should face southward, the broader and wider the better. It is all very well to have an eastern or western window for early fall or late spring, but mid-winter success is best ensured by a full southern aspect. Double sash is only a necessary precaution against the sudden cold snaps so likely to occur, and thus is obviated the necessity of removing plants at night as a precaution.

Every day attention follows. This as to the proper amount of watering and a proper temperature. Some plants need more or less water, while others require only occasional attention. Once a week a thorough sprinkling should follow, and for this purpose a wash-tub is useful, in which the plants can be set and receive the shower absolutely necessary. This will remove the dust so injurious to house plants. Never leave dried, or yellow, or diseased leaves of any sort on your plants, as they are unsightly and promote disease. In all plants where a fine top is desired the "pinching in" process will result in a better shape and often add to the greater number of flowers. Here is half a window of Chrysanthemums in full bloom. Round, shapely trees, with crowns of blossoms, white, yellow, pink-tinted, maroon, and what not. They have been subjected to the "pinching in" process half the summer past, and the result pays.

Window boxes are pretty, and need but careful arrangement to prove attractive. Even the humblest window, with

its tiny panes of glass, can accommodate a box of vines and pretty flowering plants, whose attractions win the passer-by to admiration.

Crab Cactus on a bracket or sill, where the sun is keen, yields more flowers than you will care to count. Hardly a window but boasts of Geraniums. They are so easy of cultivation and give so constant a supply of bloom that they are favorites. Care should be taken, however, to cultivate only the most beautiful, and not too many of any one sort. Rose Geraniums are almost indispensable, since it has what its flowering relations have not, fragrance, and the power to add not a little to the garnishing of our winter nosegays. For foliage plants the Bronze Geraniums and the Poinsettia are fine for brilliancy, while for quieter taste we give all honor to our Palms, among which *Chamærops*, *Lantania borbonica* and *Seaforthia elegans* are well adapted for house decoration, as well as the front yard. Let me say here, that I have tried Palms at a northern window where only light was obtained, with good success. The *Calla*, also, is desirable for foliage and flowers, but it needs have its bottom bath daily of hot water. *Bougardias* are among our beautiful winter blooming plants, while many know the value of *Begonia rubra* for window culture, and how the great clusters of scarlet-lipped blossoms hang, a wealth of beauty, among its more humble associates. It has been used as a basket plant, though my taste favors the more delicate *Oxalis*, with its equally ambitious bloom, of which the yellow is especially fine. Chinese Primroses do well close to the glass, and yield an abundance of bloom. They need always the favored place and plenty of water. Roses need a cool atmosphere and plenty of sunlight to bloom in the winter, and are but shy fairies at the best, reserving their wealth for the summer.

H. K.

JAPANESE LANDSCAPE ART.

Japan has sent many specimens of its art across the ocean to this continent, until every one is more or less familiar with the handiwork of that oldest of na-

tions. But of the out door, or landscape art, which is so important to all lovers of nature, we know but little. A few Maple trees, or rather, shrubs, that excite the

admiration of all who look upon them, some glorious specimens of *Chrysanthemums*, the floral emblem of the country, have come to us. Probably nowhere in this world is there a climate better adapted to making nature lovely the year round than that which Japan enjoys. It is really the land of flowers, where many of our most cherished flowers grow wantonly side by side in the fields and groves. Art seems capable of taking care of itself there, and the tropical luxuriance of nature's decoration almost defies improvement or change for the better.

But the fantastical oriental mind has notions of its own concerning standards of landscape beauty, and many of the novel uses to which flowers and shrubs are put by them may not always strike the westerner as strictly in accordance with the rules of art. For instance, in the gardens of the Mikado, marvelous varieties of the *Chrysanthemum* are trained on wire frames to represent animals of all descriptions, white elephants, yellow cows and crimson dogs. Liliputian Maples, dwarfed trees of different varieties form hedges, which are clipped and pruned into the most fantastic shapes, until one is bewildered by the continual succession of strange pictures and representations. *Chrysanthemums* are seen everywhere, and even the rural swain uses the flower for courting purposes. When he makes his first advancement he places a fine specimen of the flower on the door step of the rustic belle, who signifies her pleasure or displeasure at his suit by watering the plant, or allowing it to die. In either case the Jap receives his answer without speaking a word to his fair one.

But the Maples from Japan are likely to become as popular in this country, in time, as the *Chrysanthemums* have been for the last few years. They are especially adapted by their diminutive size and brilliancy of colors to garden decoration. The Japs use them in this way. Where a change of color is desired in their gardens, a pot is sunk in the ground, and one of the richly colored Maples planted. The fine, delicate, fern-shaped

leaves of some of the varieties make a grand display at a short distance off, when the lacy veining of the leaves can be seen traced in all their beauty. Other varieties, where the colors are more solid and the leaves larger, look better when at a longer distance. They make a good foreground for lawn scenes, and have a grand effect in small parks.

The leaves of these foreign Maples take on their autumn colors, green, purple red and yellow, soon after assuming the tender tints of spring, and throughout the summer months their bright colors rival the beauty of the native flowers. Their strange autumn tints seem to change a little from bronze to rose color, the two hues blending into each other gradually. But when our common Maples begin to don their autumn clothes and array themselves in all the colors of the rainbow, the Maples from Japan generally assume the sober tints of other foliage, apparently determined not to be like the other trees in color.

The plants are still expensive in this country, but in time general cultivation of them will put the price down. Hardy plants in pots have seized the popular taste in this country, and nearly every fine country residence has one or more of these ornamental pieces in front of the house. Gardens and parks abound with them, and one cannot regret that they are fashionable. They enrich the beauty of gardens in the summer by their rich green, and break the monotony of beds and walks. These hardy Japanese Maples will be found a most useful addition to all such places. Their beauty is permanent, their decoration brilliant and their cultivation easy.

In the winter time their roots require a little protection, and during the hot summer months a little mulching is also desirable. They require about the same care and attention that we bestow upon our common Maples. The soil should be kept rich and moist, but not so moist as to drown the shrubs. Usually, to keep their foliage fresh and vigorous, it is better to give them a sheltered position, unless their roots are well protected. G. E. W.



FOREIGN NOTES.

DOUBLE FLOWERS.

Many are the theories that have been promulgated as to the cause of the production of double flowers, but few indeed have been the practical experiments made with a view either to confirm or confute the assumptions that have been so freely made. But now we find a record in the *Journal of the National Horticultural Society of France* which bears so directly on the point, that we shall be doing our readers a service by calling attention to it. The record is taken from one of the reports of the German agricultural stations—institutions practically unknown here. The report in question bears the name of Dr. NOBBE—a sufficient guarantee of the credit that may be assigned to the experiments.

At the outset the point is clearly raised by the inquiry as to the reason why seeds of herbaceous plants improved by cultivation show a tendency to produce double flowers? Is there any appreciable relation between the nature and condition of the seed and of the flowers which result from their development? In the horticultural department of the experimental station at Tharand an attempt has been made to find an answer to these queries. For this purpose the common Stock was selected, as completing its development in the course of one season. Twelve distinct varieties were selected from the establishment of M. E. BENARY, of Erfurt. Of each of the twelve varieties one hundred seeds, as nearly alike as possible, were chosen. These seeds were placed in Dr. NOBBE's germinating apparatus, and submitted to a continuous and uniform temperature of 20° Cent. (equal to 68° Fahr.). After four days some of the seedlings (which must have germinated at once) were removed from the apparatus, and placed in the open ground. The other seedlings, which came up after four days and between four and nine days after the commencement of the experiment, were thrown away, so that the seedlings reserved consisted of two classes—one in which the germination had been accom-

plished within four days, and the other those in which germination was not appreciably commenced till after the ninth day. We need not give in detail the arrangement for the accurate comparison of the two sets of seedlings—suffice it to say that the seedlings were eventually transferred to large pots, and placed side by side, half of the pot being occupied by those of slow growth, the second half by the quickly developed seedlings. Moreover, some of the two sets of seedlings were placed in large, others in small pots; some in sterile sandy soil, care being always taken to make the experiments rigidly comparable. In all, nearly six hundred seedlings were thus under observation. In each case the time of the first appearance of the flower bud was duly noted, and the period when the first flower opened. From the large mass of statistical details so obtained the general result was arrived at that, for each variety the period of time between the sowing and the appearance of the first flower bud was long in proportion to the slowness of germination. In some cases an interval of five or six days was noticed between the seedlings of the two categories. The vigor of the plant was uniformly superior in those cases where the germination was rapid, and, moreover, when subjected to analysis the amount of dry matter as distinguished from water was always greater in the quickly than in the slowly developed plants.

But the most remarkable results are those relating to the production of double flowers. In all the varieties the proportion of double flowers was greater in the case of those that germinated quickly than in the case of the laggards. Ten plants of one variety with violet-brown flowers grown rapidly produced all double flowers, while eight plants of the same variety which had germinated slowly produced all single flowers.

The following figures convey other striking illustration of the facts now mentioned. Of one hundred plants belonging to nine different varieties the proportion of double flowers, according to

the period occupied in germination, was as follows:

	Doubles.	Singles.
After rapid germination . . .	82.56	17.44
After slow germination . . .	27.03	72.97

It may be suggested that the superiority might be attributable to the varying influence on the same seeds of light, heat or moisture; but the experimenters reply that the tendencies exist in the seeds themselves, for the two categories of seedlings were exposed to identically the same conditions, and yet showed the differences already mentioned. Moreover, although those seedlings which were grown on in sterile sand were much less vigorous than those grown in good soil, they, nevertheless, showed corresponding inequality as regards their flowers. Again, next to never was a single flower found in the spikes, bearing from ten to thirty double flowers, and conversely.

Lastly, hybridization shows that the seeds contain in themselves unaffected by other conditions the essence of what will be manifested in the plant later on. It must be added that there is in each variety a special tendency to produce double or single flowers as the case may be. There are some which, however treated, never yield any but single flowers, while others produce almost, or quite exclusively, double flowers, and are, in consequence, doomed to disappear.

These results are so striking that we cannot but think our great seedsmen will repeat the experiments in due season, and avail themselves of the valuable information thus placed at their disposal. That our horticultural societies will do anything so useful is, we fear, not to be hoped for

Gardeners' Chronicle.

GARDENING FOR CHILDREN.

Whatever may be the future lot of the crowds of strong, healthy looking boys and girls one meets with everywhere in town and country, it is certain, if we could interest them ever so little in the cultivation of flowers or anything else connected with gardening, we may be the means of scattering a refining influence over their lives, even if no other good should flow from it. But the question has another important aspect, for it is preposterous to suppose that in a busy country like this, with its constantly in-

creasing population, the land will ever be allowed, I will not say to go out of cultivation, but to bear being badly cultivated, as it is at present for any length of time. A practical people are bound, in the long run, to find a remedy for the existing agricultural depression. What that remedy may be it is beside my present purpose to discuss. Probably the remedy may assume different shapes to suit different districts, as it is useless to fight against Nature; but I feel perfectly convinced that out of evil will come good. And I think if our rising youth, both male and female, could learn something of the rudiments of plant life, not so much as it is taught in books, perhaps, as in the observation of living growing objects, some good must result. Of course, I know there are persons who are brought up amidst the most beautiful scenery who remain dolts and dullards all their lives. There are hundreds of people who live in constant association with all that is beautiful without seeing it, simply because they have not the right powers of appreciation; those powers not having been initiated in early life, could not have had any after development. Speaking as one who knows something of the pleasures engendered by a love of natural objects, acquired in early life, I may say there is no other pleasure so elevating or so lasting in its influence. Botany, as taught in the class-room, is often a dry, uninteresting subject; but take the class in the fields and lanes and gather and dissect the flowers in their hands and it becomes a fascinating study. As regards the children's gardening, each should have his or her separate plot, and a good deal of latitude should be given them on its management and culture, for we may often learn more from our failures than successes. Nothing strengthens a weak, timid nature so much as placing him in a position of responsibility. Let him know and feel that much, if not all, depends upon himself. This, I take it, is a lesson which all must learn, and the sooner the teaching is begun the better. The greatest minds have often been associated with timid natures. NEWTON, we are told, almost shrank from the publication of his great work because he hated controversy. A children's garden need not incur much expense.

Men and women are but children of



C. V. Riley.

larger growth, and though we ought not, I take it, to load the cares of manhood upon the brow of youth, it is possible the cares of manhood may be lightened by an early familiarity with the materials with which the Great Creator has furnished this fair earth. And the influence this knowledge must have upon our whole life here, if not hereafter, and life is too short to waste or misapply any portion of it, makes us do our life's work well. And the pleasures of youth or maiden might, with advantage, contain some germ of usefulness. Some day, probably the rudiments of gardening will be taught in our national schools, and during the time the boy or girl is getting a practical insight into the causes which lead to the germination of the seed, and the steady development of the infant plant, as soft and delicate an organism as anything possessed with life can well be, they may easily learn the relation the roots and leaves bear toward each other, and how necessary it is that they should work in unison to obtain the desired result. The rightly constituted mind never ceases to gather in knowledge. And those who speak of the season of youth as being the only learning time misunderstand the whole question. In very many instances only the foundation of any study or science can be laid in early life. The working-out of the problem may not be completed till long after, when aided by mature thought and a stronger grasp of mind, the thing which, in our early days, appeared so complicated now becomes clear, simply because more light is now shed upon it.

S. H., in *Horticultural Times*.

DIVIDING ROSES.

The following method regarding dwarf and own-root Roses may possibly possess points of interest, especially to amateurs and those who desire to perpetuate their Roses with the greatest certainty and at the same time have them always in the beds and in good condition. The method is based on the observation that almost all Roses if left to themselves make suckers at or just under the level of the ground. These suckers are generally pretty well matured by the end of September. Now it is observed also that if a plain piece of wood or cane having a root be planted rather deeply, it will all

the same send out suckers from the eyes about the ground level. It is also a point universally observed that at about the end of September the rooting tendency of Rose trees is strongest.

Suppose, then, that a seasonable moist time is present, and that a bed of own-root Roses is to be renewed, or that a few large isolated plants are worn out, then proceed as follows: First, dig up the old plant, being careful not to bruise or injure the junction of the stems. Then fill and level the hole, and by preference prepare to plant afresh at a place where the soil is light and fresh, but if it is a bed, then have nice manure ready, spread it and trench in fifteen inches or eighteen inches deep, well mixing all the staple. Then comes the important operation of splitting up the plants. Have ready a large chisel and mallet, and also a block, lay the Roses on it, and cleverly divide the hard-wooded stools as if they were herbaceous plants. Replant on the bed rather deeper than usual, so as to give a little clean stem under the soil, also prune back somewhat, according to requirements. They will be making a lot of fresh roots long before the winter, and go along in fine style the following season, sending up strong suckers from the stem above the stool or old root. In three years' time the bed may be so treated again. A. D., in *The Garden*.

FREESIAS FROM SEED.

The different kinds of Freesias are increased from seeds much more readily than most bulbous plants, or rather I should say that they attain a flowering size in much less time than the majority of them. From seeds sown in early spring and kept in a warm structure plants may be obtained that will flower during the summer, so that in their case at the most not more than six months will elapse between the time of sowing and the appearance of the blossoms. A very good compost in which to sow the seed consists of equal parts of loam, well decayed leaf-mold and silver sand, while the pot or pan intended for the purpose must be thoroughly well drained, for in all stages of growth good drainage is absolutely necessary to the welfare of the Freesias. In about a fortnight the young plants will make their appearance above ground, and when large enough to handle

they must be pricked off, a good plan being to put four or five in a small pot, as they can then be shifted on when necessary without further disturbance of the roots. Having some seed to spare last year, I sowed it in a border in the front of a greenhouse exposed only to the south, and not only did many plants come up, but several of them flowered before winter.

The Garden.

WOMEN IN THE GARDEN.

Why not? I have at least three personal acquaintances who owe much to old Dame Nature for renewed youth and new beauty of face and form gained by work in the garden. One is a lady of ample fortune, who loves her lawn, with its trees and vines and flowers as things of beauty. I doubt if the thought of health occurs to her, but the effect is patent to all her friends. Another is a lovely little woman who has been in ill health for years. This season, moving to a new home where friends and acquaintances were scarce, sheer loneliness drove her to her garden. There the needs of the growing things appealed to her, and day by day her visits were repeated, until at last all her morning hours were spent among them, planting, training, weeding, thinning and digging. The result is the renewal of health and strength unknown before for years, and new happiness and greater contentment. The third is a good woman whose sorrows seemed piled mountain high through the loss by death within a few months of her husband and child, and of property as well. Trained to no work as a girl, she seemed helpless. But her little garden

demanding attention, and her very losses compelled her to work with her hands. Here, too, the soothing balm of pure air, exercise and occupation worked its marvels in recovered health, contentment and a spirit of self helpfulness.

E. M. L., *Horticultural Times*.

IRIS KEMPFERI.

This Iris, which by reason of its gorgeous blossoms, attracts a considerable amount of attention at this season of the year, can, like all of its class, be propagated by division, and I find the best time of the year is in the spring, just as the plants show the first indications of starting into growth. By splitting them up in the autumn and early winter I lost several plants; whereas if divided in the spring they grow away at once and root directly. After division they need no coddling whatever, as if planted in the open ground their growth is both sturdy and healthy compared with that which is produced where they are protected for a time after division.

T., in *London Garden*.

THE NÉPAL LILY.

A species of Lily heretofore unknown to cultivation was exhibited in September before the Royal Horticultural Society at London. This plant is known as *Lilium Nepalense*. It is represented as growing about four feet high. The segments of the flower are greenish outside, internally intense red-crimson, with light greenish at the base. The plant is a native of the central Himalayas, and requires greenhouse treatment.



PLEASANT GOSSIP.

TURNED TO THE LIGHT.

However dark the day,
 However bright,
My plants upon the window ledge
 Turn to the light;
The stems, the leaves, the bracts
 Seem well to know
The certain principle of life
 By which they grow.

How strange it is that I,
 With active mind,
And soul that pain or pleasure feels,
 Not seldom find
My heart turned quite away
 From life and light,
And often for itself doth make
 A gloomy night.

When floods of sunshine stream
 Across my way,
Or clouds of sorrow come to mark
 The passing day,
Still teach me, O, my plants,
 Dark days or bright,
To stand, as ye, with hopeful face,
 Turned to the light.

S. E. KENNEDY.

CANNAS—VERBENAS—SUMAC.

Do Cannas come true from seed?
Will Verbenas come true from seed, and how can
they be kept over winter?
Where can I obtain seed of the Smooth Sumac,
Rhus glabra, or of the Staghorn Sumac, or are the
trees for sale by nurserymen? I have never seen
them advertised.

J. R. R., *Eugene City, Oregon.*

The different species of Canna, and
some well established varieties of it, will
come true from seed. The seed of these
kinds are sold by seedsmen. The new
large-flowered varieties of Canna, of re-
cent introduction, will not reproduce
themselves from seed, but are propagated
from offsets.

The seeds of the different varieties of
Verbenas cannot be depended upon to
produce flowers of the same color; but
they will produce a variety of colors, and
most of the flowers will be fine ones.
The best way to keep a Verbena over
winter is to keep the seed. It is a poor
plant to winter; however, it can be done,
and frequently is. With ordinary room
temperature and light watering, and good
exposure to the light it will live through.
But plants kept in this way should not be

depended upon for planting out. Their
only value is to take cuttings from, in
early spring, to propagate new plants.

The trees of the species of Sumac in-
quired for are not usually kept by nur-
serymen, nor the seeds by seedsmen.

TULIPS AFTER BLOOMING.

Will you please state, for the information of many
of your patrons, whether it is best to take up Tulip
bulbs at the close of the flowering season, or as well
to have them remain in the ground continuously.

EARLY & LATE

Like every other crop, the Tulip will
do its best in soil that is manured and
cultivated. This can be only imperfectly
done if the bulbs are allowed to remain
in the ground. If they are taken up after
blooming, when the foliage has ripened
or from the first to the middle of July, ac-
cording to the season, they need to be
out of the ground only some six weeks
or two months, and during that time will
keep well laid away in dry sand in a cool,
sheltered place. About the first of Sep-
tember they can be planted in soil that
has been manured and freshly dug, and
under such conditions will do far better
than if left to themselves all summer and
afterwards. The difference is that be-
tween good cultivation and poor or no
cultivation.

DR. C. V. RILEY.

The name and the fame of Dr. RILEY,
United States Entomologist, are more or
less familiar to all Americans, and es-
pecially to the readers of the current ag-
ricultural and horticultural literature.

In view of the great assistance he
has rendered the farmer and gardener,
this volume of the MAGAZINE is dedi-
cated to him.

In this number is presented a portrait
of the Doctor, and the following brief
summary of his life and work will inform
our readers on some points.

CHARLES V. RILEY was born in Lon-
don, England, in 1843. His boyhood was
spent in the village of Walton, on the
banks of the Thames. He subsequently

attended private schools at Chelsea and Bayswater till the age of eleven, when he entered the College of St. Paul, at Dieppe, France. Here he remained three years, and then spent nearly three years more in a private school at Bonn, Prussia. These six years of study on the Continent of Europe are the secret of his familiarity with the French and German languages, and of his power of speaking them with exceptional accuracy. Two passions characterized his boyhood, one for collecting insects, the other for drawing and painting. The first brought him, as a mere boy, in contact with the late H. W. HEWITSON, a celebrated naturalist, who had an unrivalled collection of butterflies and birds at Oatlands, Weybridge, near Walton, and later with many eminent naturalists at Bonn and the neighboring village of Poppelsdorf. The artistic talent is recorded in many a framed sketch yet cherished at Walton, and enabled him easily to carry off the best prizes in drawing at Dieppe and Bonn.

The early loss of his father, and the care at school of a younger brother, developed in young RILEY a self-reliance and sense of responsibility which gave a practical turn to his views, and convinced him that the classical education he was getting lacked many elements of utility, and was not the best preparation for active life-work. So, at the age of seventeen, with that love of adventure, of free institutions, and of rural life which often accompanies the artistic temperament, he sailed for New York, where, after a seven weeks' voyage, he arrived with little means and "a stranger in a strange land." He went west and settled upon a farm in Illinois. Here he remained for four years, and acquired an experience of practical agriculture.

About the time of his majority he commenced journalistic work in Chicago, on the *Prairie Farmer*, where, in connection with his work on the paper, he gave special attention to botany and entomology. His writings, especially on economic entomology, soon made him well and favorably known to the public. In May, 1864, he enlisted in the 134th Illinois Volunteers, and served with them until they disbanded in the following November, and then resumed his connection with the *Prairie Farmer*.

In 1868 he accepted the office of State

Entomologist of Missouri. For nine years he worked in this position, and the meantime made himself known to the whole country by his usefulness. It was during this time the great grasshopper plague of Kansas and Missouri occurred, and his services in connection therewith, as Chief of the Entomological Commission of the United States, were of the highest value.

In the spring of 1878 he was tendered the position of Entomologist to the Department of Agriculture, which he accepted, but shortly afterwards relinquished, retaining, however, his position at the head of the Entomological Commission, and continuing his work in the service of the government. In 1881 the Division of Entomology in the Department of Agriculture was formed, and Professor RILEY was placed at its head, a position which he has continued to occupy to the present time.

Of the results of his investigations and work, it would require a great space even to mention, and there is no necessity for it, as there are few that are not informed of them. His reputation is already world wide. The farmers at the west, battling with the locusts, the Orange growers of Florida and California, the vine growers of France, Hop growers, silk-worm raisers, fruit growers, gardeners and farmers generally, all know their indebtedness to him, and accord him the honor due.

Professor RILEY has given to the National Museum at Washington his private collection of American insects, containing more than 20,000 species, and represented by 115,000 pinned specimens, and much additional material unpinned and in alcohol.

Professor RILEY is a member of many scientific and philosophical societies of this country and Europe, and has received many medals and diplomas of honor from foreign governments and societies in recognition of his valuable services. His home is in the city of Washington, and is noted for its many pleasant belongings, and particularly for the taste displayed in the garden.

We can all hope that a long lease yet remains for this valuable life, and, great as is the work Professor RILEY has already accomplished, that our country and the world may still continue to be enriched by the results of his labors.

FLOWERS IN LONDON AND PARIS.

The Battle of Flowers, which originated at Nice and Paris, has become a popular fashion, or event, in England. It is not a floral battle, but a sham-fight, for flowers speak love, peace, not war—"sub rosa." They are woman's weapons, and at this *fête*, how they are used. Thrown to the right and the left, and all the cuts and injuries of the past society season are remembered; and as the friend's or neighbor's carriages pass, the vehemence with which a Rose with thorns is thrown, striking often in the face of the recipient, could hardly be called a souvenir of a Rose battle, but a love thrust, to be parried and returned by a deluge of flowers, smaller or larger, according to generosity of the occupants of the carriage. Why not use nuts, real old Hickory ones, or Chestnuts, it would, after all, be enmity buried in a nut shell; this fashionable, well bred animosity, which dare not act openly. Why not trim the carriages and wagons with autumn's gloriously tinted leaves, instead of flowers, such as Fuchsias and Hollyhocks?



FUCHSIAS, FOUR O'CLOCKS AND MORNING GLORIES.

Many attend these floral battles with only gay and festive thoughts, thinking only of the originality of a French custom as belonging to woman's kingdom. But what passer-by can see gloriously beautiful Gloire de Dijon and Prince de Rohan Roses trampled under foot by a pitiless crowd, or picked up and hawked about for sale by the common people, exposing the bleeding heart of a Begonia, the stained royal robes of Violets, the immaculate white of the Lily of the Valley, for sale for a few francs, without wishing them by the side of some invalid, to cheer in pain and sorrow.

The cuts are made to show, as much as pen and ink can do, the new species of Fuchsias and Hollyhocks so much in vogue, not forgetting the *Convolvulus* of the pink tint, so much loved in the provinces of France, by the peasants.

Their vegetable gardens look like flower beds, and Artichokes like Rose bushes of green Roses; always in a corner, or rambling upon the sides of a wood heap, will be seen the blue and pink *Convolvulus*.

The fashionable decoration of mantles and chimneys demanded a stately white flower which would not droop under gas light, and blend well with rich foliage and leaves. *Glaieul*, or *Gladiolus*, were deemed too stiff; wild flowers, not blooming, unless it might be Marguerites, which came early and expect to remain all season, so Hollyhocks became the flower for household decoration. VILMORIN, ANDRIEUX

ET CIE., of Paris, permitted the sketch to be made from finest specimens from their numerous gardens or fields of flowers.

The Violet Ponceau is the center one, remarkable for its unusual size; Gem of Yellow, Therisa, and Fleur de Pommier are on either size. The Fuchsias were of no new colors, but of unusual size. Hybride Simple Varie and Boliviana. In England, or London, they are used for outside window decorations, intermingled with plants of double and single Geraniums; no other plants will survive the climate of fogs and constant rain.

The Convolvulus, or Belle de Jour, and Mirabilis, Belle de Nuit, are of ten new varieties, in tints of rose, pink, violette, white panchée, yellow tinged with red; the dwarf panchée or striped ones are better for massive purposes. They should be rooted out each season, and new named seeds sown, and every ugly heap of rubbish in any garden covered with these climbers, which spring up in Jack-the-Bean-stalk quickness.



HOLLYHOCKS AND NASTURTIUMS.

The delicious Chasselas de Fontainebleau Grapes, and Sauvage du Caucase, black Grape, are offered in small baskets of moss at cheap prices, but they do not remain long, and are replaced by Muscat Blanc, and Gamay, a black Grape, at unreasonable prices. Occasionally one sees, in a Paris fruit shop, the American Isabella, Delaware, Norton's Virginia and Catawba.

Pineapples and Grapes are found in London as in no other city in Europe, grown to perfection under glass. Early Beatrice Peaches are said to be of a delicious flavor, but are sold, when cheap, at a shilling each, and lack the luscious tint of Delaware and Maryland Peaches. Double Brambles, coming from the south bank of the Thames, everlasting flowers, Thistles, leaves and Ferns, all crowded together, are offered for sale in London for household decorations.

In Paris there was no summer, as it rained continuously, but autumn refuses to cede place to winter, and fruit, flowers and street shows are catching pennies. It is just cool enough for the lace boa around the neck, which is only complete when decorated with a nosegay of Carnations or Roses.

Violets from Nice are saying *bon jour* from the baskets and carts of flower women, and passers by return their greeting by purchasing good sized bunches of Paris favorites. Choice Narcissus and delicate single Hyacinths, with scarlet and pink Tulips tied with the new brocaded ribbon, or heaped into masses in willow baskets with yellow and green satin bows, greet the eyes of flower lovers who peep into the

show windows of the celebrated florists. And the new Hyacinth glasses from Vienna are exquisitely beautiful.

To appreciate the beauty of Hyacinths they should be seen in Germany, so loved are they by the Germans, but to see them in Holland, common as Potatoes and not arranged with any taste, one loses the appreciation for one of the most fragrant and unselfish of all flowers, that asks only water, and will blossom and give up its sweetest perfume when denied a ray of sunshine.

But to Hollyhocks and Fuchsias. The double Hollyhocks of white and lilac colors, the maroon, purple, and large double white ones will be a perpetual admiration for decorative purposes, and their season in France is at least three months, coming when Roses rest, exhausted from blooming, and when only a few feeble looking buds hang on a bush, trying to burst open. At this time comes this graceful, stately flower, with its half-unopened buds, which will disclose its wealth of beauty days after it is cut from the stalk.

Reader, have you ever noticed how some flowers hang on until the frost cuts the plant to the ground? And have you noticed, too, with out-door plants, how they come each in their turn? It is as if by Divine Providence, we are never to be left without buds of hope and promise. In Germany, in the Black Forest section, which every tourist knows is the most beautiful part of Germany, where the air is redolent with Pine breezes of perfume of the Pine trees, and when the snow comes on the mountains and the tops of the houses are covered with a suspicion of snow, at least, I have seen Marechal Niel Roses, and Safranos, and Herman Roses cling to the bush in numbers, while the leaves were gone. The leaves were red upon the trees, the nuts fallen to the ground, and not a bird left to talk back in saucy defiance to the wood-cutters in the Forest, and the Roses would not go; as if to cheer the inmate of a home, away from the great world, and to desire to leave silently and quietly, without notice.

The Germans are, despite their stolid and phlegmatic dispositions, a poetic nation, and there are romances attached to every flower. They would fill pages of a book, and all flower lovers would associate them with each flower.

Sometime I may tell the young people that they may understand how much joy they can put in sad and forgotten lives by awakening a sweet memory in giving a flower or plant to those who otherwise would be forgotten.

A little American-German boy in the Black Forest, whose mother had left him there during winter months, was observed in the garden every morning, plucking a Rose or flower, which he took to the gate and dropped outside. When questioned why he did so, answered, "I am sending mamma a letter; flowers are angel's eyes, the gardener said so," and the little postman was as regular performing his duty as any post carrier could be. I have reasons for believing the letters were not miscarried, and perhaps this may induce older boys to remember they can often send floral letters to their dear ones, and to those who have no dear ones upon earth.

Fuchsias are used principally for handles to baskets containing white Carnations, each Fuchsia left like a dangling fringe, is very effective. Flower baskets are covered with Indian net, or tulle, with silver and gilt devices upon the net, gathered up at each corner, and tied with a bow of ribbon.

Rue de la Paix jewelers are making necklaces of gilt or golden beads, with yellowish-pink coral Fuchsias hanging as little bells.

Pink Tulips will be laid in low baskets, covered with gilt net, and each corner ornamented with gilt and pink silk pompons. White Tulips will be put in baskets, oval-shaped, and covered with scarlet, pink, blue or yellow gauze, tied with cords or ribbons; and bunches of double Dahlias of scarlet and pink tints were laden in a basket in shape of a small barrel, covered with spangled or jetted tulle, tied around the center with a gorgeous band of velvet ribbon, intended for an out-of-doors decoration. Dahlias meet with but little admiration in Paris, but in London they are much sought after for decorating the large English fire-places. The French consider them stiff, and colors too loud for refined taste!

Chrysanthemums have come, about which I'll tell in my next letter, and the names of new favorites at the Chrysanthemum Show at the Royal Aquarium.

ADA LOFTUS.

PROTECTING TENDER ROSES.

I see in your MAGAZINE for September, an inquiry by J. H. B., of Auburndale, Massachusetts, as to the methods of preserving the Monthly Roses over winter.

I have a number which I have kept over four winters, and they are fine, large bushes, and bloom splendidly all the season. My plan is to cover around the roots five or six inches deep with rough manure, then throw over them a quantity of dry leaves. Over this I made a shed roof with any old boards I found around. It is very easy where Roses are all in one bed, as they should be, to erect a covering of boards. 'It can be done by making a frame with a few pieces of scantling or boards, and the boards put on in clap-board style, so as to shed the water. They must be high enough above the bushes not to smother them, but to let a little air pass through. The bushes can be bended down so that the frame need not be high. I put this on about the time freezing weather begins, and it should not be removed until all danger of freezing is past. I preserve very tender Roses in this way.

A. K., *Bedford, Pa.*

PLANTS FOR MINNESOTA.

In the October number of the MAGAZINE, Mrs. M. P. H. inquires about plants and vines for Minnesota. I have lived in the vicinity of Minneapolis for thirty years, and have cultivated plants, out of doors and in the house, many years, so, I think, perhaps, I can tell her some things from my experience that may help her and other flower loving ladies in the State, although it is evident that she is in a colder part of Minnesota than I am, as she says they will have no Melons or Cucumbers this year, while here there has been an abundance of both. Nutmeg Musk Melons were offered at five cents a bushel in the Minneapolis market, nice ones, too, and I bought them for weeks for twenty-five cents a bushel.

I am sure that the American Ivy, or Woodbine, some call it, will be hardy enough for her arbor, also our native Bitter Sweet, and both are pretty, and when once established take care of themselves. For the border, the different sorts of Marigolds—Prince of Orange and Meteor—are fine and will stand very heavy frosts without covering; mine are

in bloom yet, October 25th, also, Mignonette and Snapdragon. And among the things that bloom and get out of the way of frosts are Poppies, and the newer sorts are not to be slighted, if they are only Poppies; Nasturtiums, Ageratums white and purple, Nicotiana and many others bloom a long time before cold weather comes, if started in the house.

And, as suggested, bulbs, Lilies of different kinds, Perennial Phlox, Hollyhocks, Hydrangea paniculata, Sweet Williams and other hardy Perennials, should be our main dependence. Many of the Hybrid Perpetual Roses do well if protected somewhat during winter. The yellow Flowering Currant is as hardy as an Oak, and pretty.

I sent to an eastern florist, last spring, and had a lot of little Monthly Roses sent to me by mail. I potted them in very rich soil, and sunk the pots in the ground and cared well for them, not letting them go dry, and the little things grew and blossomed finely, and just now I have put them in the cellar for the winter. I should think Mrs. M. P. H. would find those satisfactory. MRS. H. J. G. C.

FROST-PROOF FLOWERS.

Here, in Maine, since the 6th of September, in common with all the northern tier of States, we have had half a dozen sharp frosts and several snow squalls; yet now, the middle of October, I find in my flower beds the pink Verbena, red Catchfly, white Petunias, Sweet Alyssum, and double yellow Chamomile blooming bravely, as if they had not been frozen stiff so many times.

In the Northern States, the amateur and those without special advantages can rarely ever get their annuals and bedding plants into free blooming before the middle of July; and as we are pretty sure to have frosts by the middle of September, it makes the blooming season all too brief to flower lovers.

We should find it hard to do without "our darlings," yet when we find, some morning, our tender beauties all blackened by frost, we often wonder, with a sigh, "if the game is worth the candle."

Looking at my hardy pets set me to thinking that it would be wise for those living in the cold States, to learn a lesson from them, and thus extend their blooming season a month or more, as some of

these will continue to bloom till November. These varieties are all lovely in summer; but when everything but some such hardy thing is gone, and the fall winds are howling, it does seem as if they are brighter than in the hot season.

Of course, to keep them in a blooming state all the withered flowers must be cut during summer; but a few minutes use of the scissors once a week will be sufficient to do that.

There are plenty other hardy varieties that will do equally as well. I know of a bed of Pansies that was planted last May in a well prepared bed, that with watering have kept their large size all through the nipping drought of the summer, are blooming finely still, and give promise of coming out bright next spring.

Such hardy things repay us over and over for all the care given them, and while we do not grudge the nursing to tender varieties, would it not be well to have a bed of frost-proof ones to enjoy when those are blackened?

I think, if flower catalogues would say, when describing varieties, what ones are frost-proof, it would be quite an advantage in selecting seeds.

I have a winter-blooming *Amaryllis*, given me when a bulb not larger than a Bean. The bulb is round and green, the leaves glossy and dark, about an inch and a half wide by eight long; it has bloomed every winter since it was three years old, the blossom being a fiery scarlet, not upright, like the summer bloomers, and much larger, and they look perfect nearly a fortnight. I do not know the name, but I think it is quite an acquisition to winter blooming house plants, it is so sure to bloom sometime during the winter.

C. H.

VICK'S MAGAZINE.

With the next number we shall enter upon the twelfth volume of this MAGAZINE. Our growing subscription list and the letters of our readers indicate the satisfaction with which our publication is received. As in the past, so in the future, we shall endeavor to publish in these pages the best and most interesting horticultural information. Without being sensational, the MAGAZINE will be found to afford the most advanced garden ideas. All departments of the garden will receive a share of attention—

conservatory and house plants, the lawn, the flower garden, the kitchen garden, the orchard, the vineyard, the small fruits, the laying out of grounds, public parks, village improvements, and all that conserves the public welfare in relation to horticultural matters, from the planting of a seed to national forestry.

Our MAGAZINE is for the people, and as such, the aim is that it shall be pure and practical in its tone, simple but instructive in its teachings, and interesting and elevating in its effects. As for its colored plates, they are made to represent the natural subjects without exaggeration, and by this means are introduced to our readers the most desirable plants, both new and old, in an effective and yet truthful manner. The engravings will continue to form a prominent feature in our pages, as they teach by the eye often more forcibly than the best chosen words. We shall expect to receive the renewals of all our present list of subscribers, and at the same time a large addition to their number. We ask each one of our readers to show the MAGAZINE to neighbors, and especially to mention our clubbing list with other magazines and papers. In this manner we hope to have some assistance from every subscriber, and at this time a little help from each will prove a great assistance.

SEND IN NAMES EARLY.

It will be a great convenience if our subscribers will renew their subscriptions and send in their clubs early. It will aid us very much in arranging our books, save a liability to mistakes and enable us to send the January number so that you will have it to read Christmas Day, or at least look at the pictures, if you are too happy to read. Be sure and look carefully through the Premium List in this number, and then work for one of the Premiums. This is the best time to get subscribers.

BINDING THE MAGAZINE.

We will bind the MAGAZINE in nice cloth covers, for any subscriber, for 50 cents, and return the book, with the postage or expressage prepaid by us. Please give your name on the package when sent, so that we may know to whom it belongs.

ENLARGING THE WINDOW LEDGE.

Probably many of your readers try to make the most of their south window for plants, and it may interest them to know how I added to the capacity of mine at trifling cost. Finding two flower stands and as many brackets as I could get round the window did not accommodate all my flower pots, I got a plain one-inch White Pine board, sawed it the proper length to fit on the window sill, and cut it six inches wide. I varnished it, fastened it to the window sill by two small iron brackets placed beneath it, and put round the edge of the board a small brass railing, which I bought in a hardware store. This extra shelf took a good many pots which did not interfere with the flowers in the two stands by the window. During the summer I took down my moveable shelf, and have just set it up again by putting in half a dozen screws. The effect with the brass railing is pretty, and it is very handy. C. H. G.

CLUBBING THE MAGAZINE.

As the year draws toward its close, we are making preparations for the MAGAZINE for the following year, and to this end have arranged with the principal publications in all parts of the country to supply the MAGAZINE *in combination at reduced rates*. The attention of our readers is called to our advertised list elsewhere, wherein the rates are specified. The list is adapted to our wide extended list of subscribers, and few will fail to find their favorite papers and monthlies therein. *Consult this list and examine it carefully; please mention it to your friends, so that in making up your yearly orders for papers and magazines advantage may be taken of the favorable rates here offered.* Those who may desire different or greater combinations than those arranged in the list should write us, and state what they wish *and the lowest clubbing rates will be given.*

There is now time, before it is necessary to order for the New Year, to look over the whole ground and see how your serial reading matter can be procured to the best advantage, *the most and the best for the least money.*

We ask of all of our readers *one favor*—that they *mention our Clubbing List to friends and neighbors.*

PREMIUMS FOR SUBSCRIPTIONS.

A list of Premiums for obtaining subscribers to the MAGAZINE is announced in this number, and we would invite the attention of everybody to it.

Friends, give us your help to increase our subscription list. Every one can do something, and the Premiums are worth working for. The MAGAZINE is worth its full price to everybody, and it should be well supported. Its tendency in every family and neighborhood where it is introduced will be to refine, to elevate, and substantially improve.

We do not expect to obtain assistance in enlarging our list without paying for it, and believe the Premiums published in this number will amply satisfy those who give us their help.

Prompt work now for the next six weeks, in showing and recommending the MAGAZINE, will secure the Premiums.

Specimen numbers of the MAGAZINE will be sent to all who apply for them.

Now is the time. Do not delay.

GARDEN ESSAYS—A SOUVENIR.

GARDEN ESSAYS, as announced in our last number, will be a neat and well illustrated little volume, and will be sent free to every subscriber to the MAGAZINE for 1889, whether singly or in clubs, excepting as follows:

We do not send a copy of Garden Essays to those subscribers who take advantage of our low subscription list with other publications, or to those who subscribe through dealers or publishers.

It will be ready to send out about the holidays.

LOST NUMBERS.

If any number has failed to reach any subscriber during the year, and and the volume is thus incomplete, please send us a postal card, stating what number you need, and it shall be forwarded.

CLOTH COVERS FOR MAGAZINE.

We will furnish elegant cloth covers for the MAGAZINE to our subscribers, for 25 cents each, and prepay postage. Any bookbinder can put on these covers at a trifling expense.

OUR YOUNG PEOPLE.

A CHRISTMAS MEDLEY.

In April, when soft airs and warm rains had turned the brown earth green, a timid tapping was heard, one morning, at Mrs. Thornton's kitchen door. A moment later and that person was notified by her domestic that "a poor, scared-lukin' craythur outside the dure wad like to spake wid the misthress."

The mistress, upon going out, saw a thin, poorly clad, but very tidy looking woman, seeming palpably to shrink with timidity as she took from a basket a plate on which was a pat of butter covered with a clean, wet cloth.

"Can I sell you a pound of butter?" she asked, as she daintily lifted the covering, "you see, it's a leetle mite touched with the grass."

"It looks very nice," was the answer, "but I've just put away several pounds—all we can use at present, and do not need it."

Disappointment displaced the questioning, eager look on the woman's face, and she returned the plate to the basket and hurried away.

Mrs. Thornton, weary with the morning's duties, returned to her easy chair, and with head reclining against its back tried to rest. But presently a vision of that woman rose up before her. She could see the modest face inside the clean, shapely sun bonnet, the pleading eyes and timid bearing, and then the disappointed look as she had hurried away.

It seemed certain, upon reflection, that some dire necessity had driven the woman to offer that one pound of butter where she would be paid in money, instead of to the groceries where only the usual exchange could be had. What if she were needing just twenty-five cents for some special purpose—perhaps to make up a sum which should stop the threats of a pressing landlord—or, possibly, to help pay for a much needed school book, or, worst of all, what if it were wanted to get a prescription filled for a sick child or husband. And still more dreadful, what if the sick one were to die

because of not getting the medicine promptly! If only she hadn't looked so disappointed, and her manner and tone been so pathetic, one might forget her. And if only one could think quickly and clearly when one is tired.

"O, me," sighed Mrs. Thornton, "why couldn't I have just bought it any way when offered by a person like that, even if I'd had fifty pounds on hand? Goodness only knows how much she needs money this minute. 'A leetle mite touched with the grass,' she said. So it was, poor thing."

In the following December—the month that makes expectant and glad so many hearts in Christian lands, the young people in the Thornton home were all a-tip-toe with joyous hopes of the coming festivities and of the delightful surprises sure to await them. Among the possible pleasures anticipated, Walter and Juliet knew definitely of but one, and that was to be a visit from their cousins Ralph and Amy, who were to spend the entire holiday week, or, as Juliet liked to express it, they were to stay "until some time next year."

As the days passed by many suspicious shopping trips were made, many mysterious packages slyly hidden away, while among the younger children the excitement waxed hot and hotter as each one showed the gift intended for each to all the others, except to the intended recipient, so that matters soon became very much mixed up—a delightful medley that no one but themselves could have untangled.

On the morning of the twenty-fourth, as Mrs. Thornton was pondering on all she would yet like to do for certain ones outside of home who had little to expect in the way of holiday pleasures, Juliet broke in upon her meditations, thus:

"Are your holiday plans completed now, mamma, so you can rest, mind and body?"

"Very nearly," was the answer. "Do you remember, dear, that poor woman

who wanted to sell me a pound of butter, last spring?"

"Well, I should think so—you haven't allowed me to forget her. Every few days, ever since, you've made some reference to her."

"Have I? Well, you know the reason why, and how I have hoped to be more discriminating in the future. But what I want to tell you now is, that yesterday I heard all about the woman, and went to see her in company with another member of our Association, to whom she had told that morning's experience, after the lady had already heard my side of it from me. I told her how I had worried at not having bought her butter, and she smiled in a patient sort of way as though she thought I little knew what her heartache had been on that morning. O, Juliet, how careful we ought to be among so many unworthy seekers of help that we slight not the deserving. You remember those precious words: 'Inasmuch as ye have done it unto one of the least of these ye have done it unto Me.' What a comforting assurance."

"Well, I want you to know that while that woman's husband was engaged in taking down the walls of a building, a portion suddenly gave way, and falling upon him so injured his spine that his lower limbs were permanently paralyzed. This had happened two months before I saw her, at which time her husband's earnings were expended, their rent was over due and she had not a cent of money for any purpose whatever."

"Couldn't she have sold their cow?"

"You inexperienced child, how little you realize the value of a cow to a poor family where there are children. They had already wintered her by selling a part of the milk, and it seems that their little son paid for pasturage by driving to and from the pasture the owner's cows. But look, dear, what is the matter with Walter?"

Juliet turned to the window and saw her brother coming up the steps with an open letter in his hand, looking the picture of despair. She met him at the door only to hear him say:

"Don't you think, Ralph and Amy are not coming. Just read that—if you can," he added. Juliet dropped into a seat, looking heart sick, as she read the following:

"DEAR COUSIN WALTER — Amy and I cannot be with you during the holidays, and it is all my fault. You'll laugh so when you learn the reason why, that I'll write it in hieroglyphics (is that spelled right?) so you'll get at it slowly. Father once showed me how to write in this way, and says that when the characters were taught to him he was told that they're the true ones used by Burr and Blannerhasset in their conspiracy against the government."

"However that may be, their formation is based upon a geometrical system which makes them curious and interesting. Father says I play so many pranks that he shall send the key to Uncle Thornton, lest you do not get at the true cause of my absence. I'm sure I wish you never could. But as that's to be a part of my punishment, here goes."

"Last evening I was staying in the office to take charge of an important package that was to be handed in, because father had been sent for to write a sick man's will. Later in the evening our seamstress was to call for me to go home with her, and she's such a coward I thought it would be great fun to give her a little scare. So I—

פדקס דאז אל נרוולוח—
זזס דרא נחזסל > דודק טכז דסספ
אזל אהחססס חחוסא דזוז אהחפור
חלג אהחכנרדל. נודק אכ נכזסל
ח שרד דו נרוזא > כדדס נדדכזח
דדדנוז סכז דדד ח, דס נרוולוח דודק
נחחכס ח ננרדנ דדלס סר נכזס
נוז דז— זזס דסל דכסס ח דדדס
ו נו טלוח— א' ח, זזס שורד סר
אנול!

"There! I wish you much joy of the translating part. If you happen to like that sort of thing, I can send you an alphabet made entirely of anchors and arrows, which my father also showed me how to write."

"O, gracious! but I do feel cross. Amy's too vexed to be any comfort to a fellow, and I shall have to entertain myself by pulling her hair and pinching the dog's ears and the cat's tail."

"Say, Walt, I'd rather you'd not let uncle and aunt see this letter. I know it's a disgrace to me, but I can't help now what's done and past. It's as much

as ever I can wish you a Merry Christmas; but I do wish it. And now goodbye, from your unlucky cousin, RALPH.

"P. S.—Tell Juliet she may scold about me all she pleases to help out with her Christmas. I wanted Amy to make the visit without me, but mother don't like her to go by herself. R."

"Whoever heard of such a boy," cried Walter when Juliet stopped reading. "I wonder what he's been up to this time. Give me the letter, and let's see if I can pick any meaning out of his straight marks and angles. 'A system running through it,' is there? But there's no beginning nor end to give me a clue."

"How do you mean?" asked Juliet.

"Why, if he had commenced with *Dear Walter*, for instance, I should have known that the first character stood for *d*, the next for *e*, and so on, and could have made it all out with that much of a start."

"O, yes, I see. But look—what word is there of only four letters, the first and last of which are the same? Here are two of them."

"That's so. Ha! now we'll have the whole thing. Quick, get a pencil, and we'll soon know what the fellow has been doing."

While the brother and sister were thus engaged their mother was mentally making a change in one of her arrangements whereby the butter woman's husband and children, as well as herself, would share in a special treat, which had been planned as a festival of welcome and cheer for the cousins on Christmas Eve, after their long trip, and as a surprise for Walter and Juliet. Now she would manage that the latter should still enjoy it (though under other conditions), despite their disappointment; while she, herself, should be better satisfied that the poor family would also enjoy this in addition to the external comforts she had already commissioned the good St. Nicholas to leave at their door on Christmas morning.

Having arranged all in her mind, she was ready for action. A change of the delivery address was sent to the steward of their own mimic Delmonico's, and Ralph was sent to the same street and number to leave word that their dinner would be sent in at six o'clock.

"And do I have to carry it?" he asked.

His mother answered, evasively, "I think you and Juliet can manage the basket between you."

When Walter returned he was full of talk about the invalid, in whom he had become much interested, as also in the various appliances of bed, hammock, pulleys, rubber contrivances, etc., supplied from a charitable fund, whereby the wife was enabled to wait upon him herself. Also, Ralph was impressed by the exquisite neatness of the little home. A picture had been formed in his mind which he could not seem to forget.

When six o'clock found Walter and Juliet entering the little home they were rendered speechless for a time by a colored man in white apron seizing their basket and swiftly adding portions of the substantials he found therein to the delicate viands already arranged upon two adjustable tables—one at the bedside with four plates, the other opposite the foot with two.

"Dinner for six," he said, "you two take your seats there."

"Wait till we collect our senses," said Ralph, and then they spoke to the invalid and wife and to the two shining children, after which the waiter motioned them into their seats, and with swift, deft motions commenced serving the dainty repast, beginning with the sick man. The appointments of the tables were in keeping with the quality of the repast, and brilliant lights from colored lamps illumined the room. The children gazed in open-eyed wonder and ate and laughed alternately, while the waiter assured them that Santa Claus, himself, had ordered that very supper sent to that house.

Finally, the tongues of all were loosed, and they ate and chatted together. Then the waiter left them for an hour, telling them to take their time, while he delivered another supper, and presently they heard him drive away.

When again the waiter left them, enough food remained for the Christmas day's fare, and the sick man assured Walter that the memory of that evening would brighten up the whole round year for them.

When they returned home the brother and sister had much to say about the evening's experience.

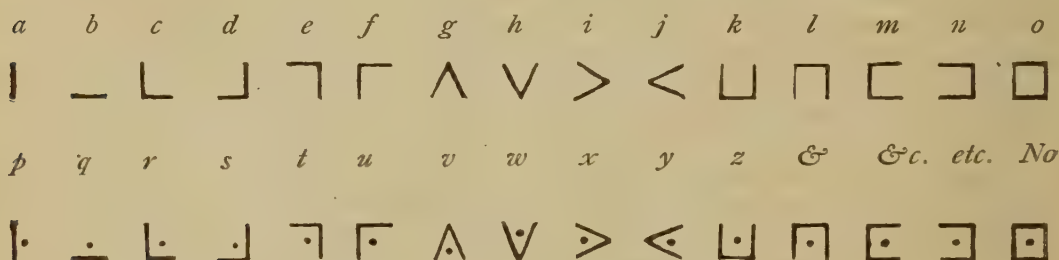
"Such a surprise all around," said Ju-

liet, "and now, mamma, I hope you'll have no more twinges of conscience about your butter woman."

Before the New Year came around, a note was received from Ralph's father, containing the promised key, which read thus:

"You'll notice that the whole alphabet is represented by the four sides of a square. You take one side and stand it on end for *a*, and lay it down for *b*. Then you take two sides and place them in every possible position for the next letters; then three sides the same way; after which you're surprised to find that the four sides—the *square*—which you must use next, happens to represent *o*—the *circle*. Then you go back to the *a* mark and use them all over again by adding a dot."

KEY.



Although by this time Walter and Juliet had solved the mystery in Ralph's letter, and had laughed and scolded to their heart's content, they had not arranged the alphabet in systematic form and were delighted to get the key, promising themselves much pleasure in testing the expertness of certain of their friends in translating such really interesting characters.

MARIA BARRETT BUTLER.

SAID TULIP, "THAT IS SO."

One Christmas time some roots and bulbs,

That lived far under ground,

Began to talk so softly that

Above was heard no sound.

Said Hyacinth, "It seems a shame

That we should have no share

In all the fun that's going on;

It really is not fair.

We hear the merry, jingling bells,

As sleighs fly o'er the snow,

But cannot see a single thing."

Said Tulip, "That is so."

Said Crocus, "I would like my dress

Of shining gold to don."

Said Scilla, "O, I wish I could

My bright blue gown put on."

"And much I long to join the dance,

For none can rival me

In grace, the wind has oft declared,"

Said fair Anemone.

"And would," Narcissus said, "I might

My silver trumpet blow;

'Twould glad, I'm sure, the Christmas green."

Said Tulip, "That is so."

Then spoke the Snowdrop, "Cease to wish,

For wishes are in vain;

Here must we stay until we're called

Above the ground again.

The blessing of a perfect rest

At Christmas time, is ours,

That we may gather strength to deck

The earth, in spring, with flowers.

So, sleep again, my sisters, dear,

Till it is time to grow,

And all your dreams shall pleasant be."

Said Tulip, "That is so."

MADGE ELLIOT.

FOR CHRISTMAS.

"Thy own wish wish I thee in every place,"

The Christmas joy, the song, the feast, the cheer,

Thine be the light of love in every face

That looks on thee, to bless thy coming year.

Thy own wish wish I thee. What dost thou crave?

All thy dear hopes be thine, whate'er they be;

A wish fulfilled may make thee king or slave.

I wish thee Wisdom's eyes wherewith to see.

Behold she stands and waits, the youthful Year.

A breeze of morning breathes about her brows,

She holds thy storm and sunshine, bliss and fear,

Blossom and fruit upon the bending boughs.

She brings thee gifts. What blessing wilt thou choose?

Life's crown of good in earth, or heaven above,

The immortal joy thou canst not lose

Is Love. Leave all the rest and choose thou Love.

CELIA THAXTER.



Watching For
Christmas,
Santa Claus,
Stockings

EDITOR'S MISCELLANY.

AMERICAN FORESTRY CONGRESS.

The seventh annual meeting of the American Forestry Congress, by invitation of the Legislature of Georgia, will be held at Atlanta, the Capital of that State, on Wednesday, December 5th, at 3 o'clock, P. M., in the Hall of the House of Representatives.

The meeting will be one of more than usual interest, because of the anticipated union at this time of the Southern States Forestry Congress with the American Forestry Congress, which, if effected, will enlarge the membership of the latter, make it a body properly representative of the forestry interests of the entire country, and enable it on this account to exert an increased influence in behalf of forestry in every part of our wide domain.

The subjects which will be specially considered at this session of the Congress, are:

Legislation needed in behalf of the timber lands belonging to the United States; need of State Forestry Commissions and their proper sphere of action; methods desirable for educating the public mind in regard to Forestry. Papers and addresses on these and other subjects pertinent to Forestry are promised.

THE STORY MOTHER NATURE TOLD.

The writer of this book, Jane Andrews, has a rare faculty of imparting scientific facts, the operations of nature, in a manner so simple and story-like as not only to adapt them to the capacity of young children, but to make them pleasing as stories. The book is well printed and beautifully bound, and is well worth the dollar asked for it to place in the hands of a boy or girl of inquiring mind. A school edition of it is printed at half the price, and a bright, wide-awake teacher, with a copy of it used as an aid, could impart an amount of scientific instruction far greater than the book itself contains.

All the Year Round is an illustrated calendar of excellent design and finish. Illustrations in sepia-tint, tablets with gilt edges, in box, price 50 cents.

A Christmas Carol, by Dinah Maria Muloch. This beautiful Christmas song is issued in most exquisite form, printed on heavy card-board, sepia-tint illustrations, and gilt edged. It is a very gem. Price \$1.00.

A Psalm for New Year's Eve, by the same author, is issued in the same form and style as the above. As holiday gifts there can be nothing more beautiful or appropriate.

All of the above are published by Lee and Shepard, of Boston, Mass.

FOR THE BABIES.

Excellent service has been done for mothers and nurses by Dr. Louis Starr, in writing the volume *Hygiene for the Nursery*, lately published by P. Blakiston, Son & Co., of 1012 Walnut Street, Philadelphia, Pa. Dr. Starr is Chemical Professor of Diseases of Children in the Hospital of the University of Pennsylvania, and Physician to the Children's Hospital, Philadelphia, and his training and great experience enables him to write the work here noticed with authority. An ounce of prevention is said to be worth a pound of cure, and this book puts in the hands of mothers and nurses the preventives of sickness, or, in other words, it teaches how to keep the little ones in health. Babyhood is certainly befriended by this book of Dr. Starr, and if it could be put in every nursery in the land, and its instructions

be regarded, it would be the means of saving the lives and promoting the health and comfort of thousands of little ones. The book is well and plainly written, handsomely printed and illustrated, and substantially bound, and contains an excellent index. The price is one dollar and fifty cents.

NINTH VOLUME OF ALDEN'S MANIFOLD CYCLOPEDIA.

Open at random at which page you will, or look for almost any subject you choose, and concise, accurate and valuable information meets the eye. With each new volume one's surprise at the available knowledge contained in these handy and even elegant books is increased. There can be no doubt that the completed set will form one of the standard works of the generation. The small handy volumes are so much more convenient for consultation than the big, unwieldy octavos or quartos of rival cyclopedias, that one naturally refers to them much more often, and is gratified to find that, except in rare cases, the information afforded is fully as satisfactory as found in Appleton's, Johnson's, Chamber's, or the Britannica. The price is low beyond all precedent, placing it within popular reach—50 cents a volume for cloth binding, 65 cents for half morocco; postage 10 cents. A specimen volume may be ordered and returned if not wanted. John B. Alden, Publisher, New York, Chicago, Atlanta and San Francisco.

THROUGH FIELD AND WOOD.

This is the title of a small volume of lyric verses and sonnets, by Lewis Dayton Burdick, and published by J. B. Lippincott & Co., of Philadelphia. We have here the songs of a nature-poet, in which natural objects and natural scenery are often mentioned and described, and in reading them one is frequently reminded of Bryant, who was so felicitous in the same style of writing. The few verses of this poet which we had previously seen, had given us some slight knowledge and a favorable opinion of the writer, and it is a pleasure to have the first impressions made of his ability so fully confirmed as they are in this volume. A spirit of hopefulness predominates in all his verse, and we trust he may long continue to sing and cheer his countrymen.

ALL KNOWN FERNS.

Dr. Lorenzo G. Yates, whose new work with the above title has already been noticed in our pages, announces that it is nearly ready. As soon as sent out we shall inform our readers. In meantime those who may wish to know more about it, or to order it, should write to Dr. Yates, at Santa Barbara, California. It is a book of reference for those interested in Ferns, for all countries, containing all the known Ferns of the world, with habitat and synonyms, and arranged in genera and subgenera. A work that has long been needed.

MILS PARLOA'S NEW COOK BOOK.

What a lady may not know about cooking will never be thought a fault if she knows all there is in Miss Parloa's *Cook Book*. It is a cyclopædia of cooking, and all the directions in the plainest possible manner. Estes & Lauriat, Publishers, Boston, Mass.

